

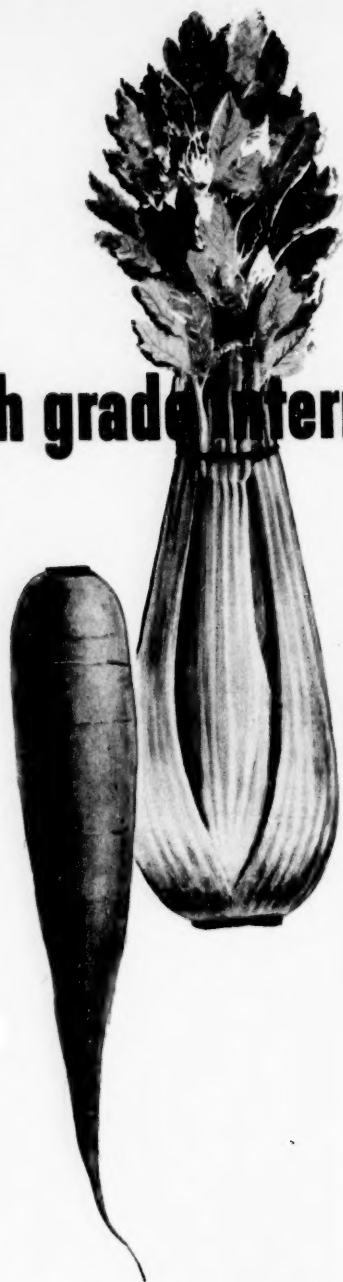
# MANUFACTURERS RECORD



Spring

South Carolina

# High grade international phosphates



Ample resources for prompt deliveries of large tonnages from *International's* modern mines and plants in Florida at Noralyn, Peace Valley, Achan, Mulberry; in Tennessee at Mt. Pleasant and Wales.

- phosphate for the manufacture of complete plant foods
- natural ground rock phosphate for direct application to the soil
- phosphate for the manufacture of industrial chemicals



phosphate division

**INTERNATIONAL MINERALS & CHEMICAL CORPORATION**

General Offices: 20 North Wacker Drive, Chicago 6

*This advertisement is appearing currently in magazines reaching fertilizer manufacturers*



# FIRST IN SOUTH CAROLINA



*Bill Daily  
Says:*

With a circulation gain of better than 300% in recent years, the ANDERSON newspapers have moved up next to CHARLESTON in total circulation!

ONLY newspapers in South Carolina designed for easy reading by the world's most famous typographer, Gilbert Farrar, who styled LOOK Magazine, The Chicago Sun and many other leading publications.

FIRST newspapers in this state to install a complete photographic and engraving plant, enabling them to print regularly more local and regional pictures than any other South Carolina newspaper.

FIRST and ONLY South Carolina newspapers to sponsor nation-wide broadcasts to publicize the natural resources of South Carolina and the Savannah Valley Area.

FIRST newspapers in the South to be selected by Northwestern University for a readership study. In a typical year, this study revealed, the Anderson newspapers contributed \$66,091.20 to help build this community and section.

Only Newspapers in the United States to have twice received the University of Missouri—N.E.A. Silver Plaque for rendering the greatest community service in the nation (1941 and 1944).

AWARDED top N.E.A. honors for circulation promotion and Carrier-Salesmen welfare program.

AWARDED Editor & Publisher Blue Ribbon for writing and publishing the best advertisement in the United States.

In 1950, the National Editorial Association awarded The Independent its Distinguished Service Bronze Plaque for outstanding Farm Pages.

The Daily Mail was awarded the N.E.A. Bronze Plaque for having produced during 1950 the largest newspaper ever printed in South Carolina (304 pages). This edition was acclaimed one of the three best issued in the United States.

**ANDERSON** ★

Compared with Spartanburg, the Anderson newspapers provide advertisers: 25% more prospects, 43,609 more population and \$5,105,000 more retail sales! Hundreds of astute National Advertisers are today buying THREE TIMES as much space in Anderson as they did FIVE YEARS AGO!

This unprecedented ACCEPTANCE of these newspapers (at the low rate of \$2.66 per inch) is the result of the complete saturation of the ANDERSON TRADING AREA by The Independent and Daily Mail.

APRIL NINETEEN FIFTY-TWO

**Anderson's Modern Newspapers  
Lead In**

- ★ Circulation Growth
- ★ Prestige
- ★ Public Service
- ★ News, Pictures, Features

**CIRCULATION OVER**

**44,000!**

**The Anderson Independent**

L. S. HEMBREE, Editor

**THE DAILY MAIL**

J. B. HALL, Editor JAMES R. YOUNG, Associate Editor

WILTON E. HALL, Publisher

**"South Carolina's Fastest  
Growing Newspapers"**



# INSULATED

# METAL WALLS

for INDUSTRIAL and COMMERCIAL BUILDINGS

ALUMINUM, STAINLESS or GALVANIZED STEEL

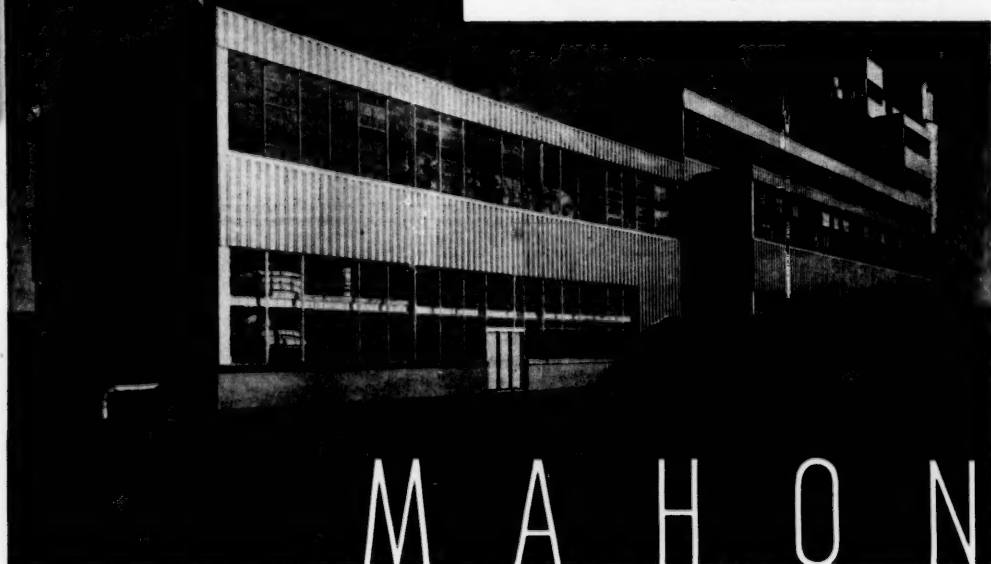
As further evidence of the trend to Insulated Metal Walls in modern construction, the new plant recently built for Quaker Oats in Omaha, Neb., is presented. A second plant for Quaker Oats is now nearing completion in Chattanooga, Tenn. Mahon Insulated Metal Walls with Aluminum exterior wall plates, coping, flashing, etc., and Mahon Steel Deck Roofs, were employed to good advantage in the construction of both of these completely new and modern plants. Mahon Insulated Metal Walls can be furnished in the three distinct exterior patterns illustrated at left . . . they are available in two "Field Constructed" types, and in two types of "Prefabricated Panels". Walls of the "Field Constructed" type can be erected up to fifty feet in height without horizontal joints—a feature of Mahon walls which is particularly desirable in power houses or other buildings where high expanses of unbroken wall surface are common. For complete information on this modern, permanent, firesafe Wall and Roof Construction see Sweet's Files, or write for Catalogs No. B-52-A and B.

**FLUSH, RIBBED, or FLUTED**  
Over-all "U" Factor of Various Types is Equivalent  
to or Better than Conventional 16" Masonry Wall

## THE R. C. MAHON COMPANY

Detroit 34, Mich. • Chicago 4, Ill. • Representatives in All Principal Cities

Manufacturers of Insulated Metal Walls; Steel Deck for Roofs, Partitions, and Permanent Concrete Floor Forms; Rolling Steel Doors, Grilles, and Underwriters' Labeled Rolling Steel Doors and Fire Shutters.



# MAHON

MANUFACTURERS RECORD FOR

# MANUFACTURERS RECORD

ESTABLISHED 1882

Devoted to the Industrial Development of the South and Southwest



Volume 121

April 1952

Number 4

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COVER—One of the country's most modern and extensive shipping facilities in the \$20,000,000 North Charleston Terminals of the South Carolina State Ports Authority. The marginal pier, forty feet wide, is 1,938 feet long, berthing four vessels at one time. Cargo may be handled direct from rail cars on the double marginal tracks or from adjacent head houses. Water is 35 ft. deep at pier.

## MANUFACTURERS RECORD PUBLISHING CO.

Publishers of *Manufacturers Record*, *Construction*, *Daily Construction Bulletin* and *Blue Book of Southern Progress*.

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C. J. O'Donnell, Treasurer

Wm. M. Beury, Editor Richard R. Harwood, Jr., Mgr. Editor  
Caldwell R. Walker, Editor, *Business Trends* Samuel A. Lauver, News Editor  
Robert S. Byfield, Financial Editor Sidney Fish, Industrial Analyst

## PUBLICATION AND BUSINESS OFFICES

109 MARKET PLACE, BALTIMORE 3, MARYLAND

F. O. Schroeder, Southern Business Mgr.—Baltimore Office.

R. S. Kendrick, 1430 Clairmont Rd., Decatur, Ga., Tel. Crescent 4577

J. E. Eierman, Circulation Mgr.

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APRIL NINETEEN FIFTY-TWO

## The South's Local Service Airline

A VITAL LINK  
in the  
TRANSPORTATION SYSTEM  
of the  
SOUTH.

Southern Airways offers fast, direct, daily flights from 32 leading cities, of which 12 are served exclusively by Southern.

YOU CAN FLY OVER AND BACK  
THE SAME DAY  
on many Southern Airways "commuter" flights. . . . You can rent a car at your destination if you wish. . . . You can fly and "charge it" with a convenient no-deposit charge account on Southern. Ask about these and other Southern Airways services.



NO MATTER WHERE YOU  
WISH TO GO BY AIR,  
write, wire, or phone your local Southern Airways office for full details, reservations.



General Offices — Municipal Airport  
BIRMINGHAM

Sales Offices — Municipal Airport  
ATLANTA

# record of Achievement

*During 1951...Our 60th Anniversary...Life of Georgia:*

GAINED \$90,805,833 LIFE INSURANCE IN FORCE

*Bringing the Total to \$821,964,811*

INCREASED ASSETS \$10,839,569

*To a Total of \$66,757,955*

PAID POLICYHOLDERS AND BENEFICIARIES \$9,333,404

*This Was \$1,265,783 More than 1950*

BOOSTED RESERVES \$9,994,187

*For a Total of \$48,555,280*

## Financial Statement AS OF DECEMBER 31, 1951

COMPILED FROM REPORTS FILED WITH INSURANCE DEPARTMENTS

Assets		Liabilities and Surplus	
	PERCENT	AMOUNT	AMOUNT
U. S. Government Securities	14.37	\$ 9,594,582.94	Policy Reserves . . . . . \$48,555,280.17
State, County and Municipal Bonds . . . . .	12.16	8,117,124.70	Claims in Process of Settlement . . . . . 143,209.72
Railroad Bonds . . . . .	1.71	1,139,577.12	Reserve for Unreported Claims . . . . . 186,343.17
Public Utility Bonds . . . . .	21.11	14,091,264.38	Premiums and Interest Paid in Advance . . . . . 836,679.73
Industrial and Miscellaneous Bonds . . . . .	4.30	2,871,891.90	Estimated Amount Due and Accrued for Taxes . . . . . 725,314.03
Stocks . . . . .	3.20	2,138,963.00	Reserve for Pension Plan . . . . . 3,577,234.72
Mortgages (First Liens) . . . . .	32.86	21,938,965.68	Agents' Bond Reserve and Interest . . . . . 560,423.75
Real Estate:			Miscellaneous Liabilities . . . . . 281,739.54
Offices (Including Branches) . . . . .	2.88	1,922,163.56	<i>Total Liabilities Except Capital</i> <u>\$54,866,224.83</u>
Investment . . . . .	1.55	1,035,175.59	CAPITAL AND SURPLUS FUNDS FOR FURTHER PROTECTION OF POLICYHOLDERS:
Policy Loans . . . . .	.39	256,972.27	Capital . . . . . \$ 7,000,000.00
Cash . . . . .	2.97	1,985,029.39	Unassigned Surplus Funds . . . . . 4,891,730.39
Interest and Rents Due and Accrued . . . . .	.56	371,677.96	<i>Capital and Surplus</i> . . . . . <u>\$11,891,730.39</u>
Premiums in Course of Collection . . . . .	1.92	1,282,577.73	
Miscellaneous Assets . . . . .	.02	11,989.00	
<i>Total Admitted Assets</i> . . . . .	100.00	<u>\$66,757,955.22</u>	<i>Total</i> . . . . . <u>\$66,757,955.22</u>



# LOCK JOINT

serves the  
**SOUTH**



## IF YOU'RE FROM THE SOUTH...

specifically Virginia, North Carolina, South Carolina, Georgia, Florida, Alabama, Mississippi, Kentucky or Tennessee... our plant at Columbia, South Carolina, is ready and waiting to serve you. This Columbia plant, the fourth of our up-to-date permanent pressure pipe manufacturing yards, is equipped to produce Lock Joint Prestressed Concrete Cylinder Pipe in diameters from 16" to 48", designed for any pressure common to water works practice. The plant's central location in the Southeast makes it possible to deliver the completed pipe speedily and economically throughout this area.

IF YOU'RE FROM ANY OTHER PART OF THE COUNTRY EAST OF THE ROCKIES... our three other permanent pressure pipe plants located at Wharton, N. J.; Detroit, Mich.; and Turner, Kansas, stand ready to provide for your complete Reinforced Concrete Pressure Pipe requirements. All these plants are equipped to manufacture the most carefully designed modern Concrete Pressure Pipe in a large range of standard diameters, and have facilities to handle any contract however large or small.

SCOPE OF SERVICES—Lock Joint Pipe Company specializes in the manufacture and installation of Reinforced Concrete Pressure Pipe for Water Supply and Distribution Main 16" in diameter or larger, as well as Concrete Pipes of all types for Sanitary Sewers, Storm Drains, Culverts and Subaqueous Lines.

## LOCK JOINT PIPE COMPANY

Established 1905

P. O. Box 269, East Orange, N. J.

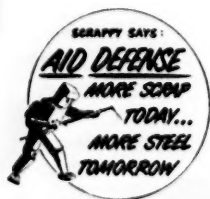
PRESSURE PIPE PLANTS: Wharton, N. J., Turner, Kan.,  
Detroit, Mich., Columbia, S. C.

BRANCH OFFICES: Casper, Wyo. • Cheyenne, Wyo. • Denver, Col. • Kansas City, Mo. • Valley Park, Mo. • Chicago, Ill. • Rock Island, Ill. • Wichita, Kan. • Kenilworth, N. J. • Hartford, Conn. • Tucuman, N. Mex. • Oklahoma City, Okla. • Tulsa, Okla. • Beloit, Wis. • Hato Rey, P. R. • Caracas, Venezuela





# Grandpa Never Threw a Thing Away



It's only human to want to hold on to things after they've outlived their usefulness. That's why today millions of tons of worn-out and obsolete equipment and machinery are lying forgotten in the country's plants and factories and on farms.

The steel industry needs these millions of tons of dormant scrap, needs

it in the worst way. With this vital dormant scrap the entire steel supply picture would brighten up, with more steel for everybody. But without it, the steel industry cannot hope to keep up production at present levels.

Call in a scrap dealer now, today. He will buy your dormant scrap and start it moving toward the steel mills.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

## More Scrap Today... More Steel Tomorrow

MANUFACTURERS RECORD FOR



# An Important Announcement about Lubricating Costs



Be sure  
with Pure

The Pure Oil Company's great new lubricants' plant near Beaumont, Texas, is now in full production.

This makes Pure Oil's complete line of top-quality lubricants available to a far greater number of industrial users than it has been up to now.

Many of these lubricants—contrary to usual practice—are designed to do several *different* jobs instead of one specific job, and to do each job *equally well*.

This enables you to do *all* your lubricating with *fewer* lubricants. In other words, you can

## SIMPLIFY AND SAVE . . . WITH PURE OIL INDUSTRIAL LUBRICANTS

If this sounds worth looking into (and we assure you that it is) write:  
The Pure Oil Company, Industrial Sales, 35 E. Wacker Dr., Chicago 1, Ill.

Working  
for  
"Peanuts"  
Is Big  
Business  
in



This is "Southern City," U.S.A. It's our way of expressing as a unit the vast Southeast area of 100,000 square miles and 6,300,000 people served by the four associated electric power companies of The Southern Company system.

# SOUTHERN CITY, U.S.A.



Throughout the nation businessmen, editors and publishers are acclaiming the tremendous industrial and agricultural advances made in Southern City during the past decade. Over 115,000 stockholders of The Southern Company, located in every state in the Union, are vitally interested because this progress assures a constant and growing demand for electric power.

*The South and The Southern Company Group are both growing . . . together!*

The tiny peanut has come into its own in Southern City, U.S.A.—typical of the industrial and agricultural expansion that makes the area one of the fastest growing in the nation.

During the past ten years Southern City farmers and manufacturers have turned an abundant crop—over half the peanuts grown throughout the nation—into a multimillion dollar industry, providing employment for thousands and tasty food products for families the country over.

And as a basis for hundreds of synthetic products and many useful by-products the peanut offers new opportunities to alert manufacturers every day.

Write the industrial development departments of any of the four operating companies for further information.

**ALABAMA POWER COMPANY, Birmingham, Alabama**  
**GEORGIA POWER COMPANY, Atlanta, Georgia**  
**GULF POWER COMPANY, Pensacola, Florida**  
**MISSISSIPPI POWER COMPANY, Gulfport, Mississippi**  
**THE SOUTHERN COMPANY, Atlanta, Georgia**



# BUSINESS TRENDS

## South Displays Strength

### As Business Levels Off

#### NATIONAL ASPECT

As frequently surmised in this column over the past year, the forces of free enterprise are rapidly dispelling the threat of inflation.

Were deficit spending brought to a halt, the job could be completed in short order.

Even as it is, the defense program is not generating enough business activity to offset the counteracting force of immensely expanded plant capacity.

In general, production and distribution of durable goods were in January ahead of the same month last year, but the gain in these was insufficient to match losses occurring in turnover of nondurables.

In consequence, the month of January 1952 ran very slightly behind its 1951 counterpart in total business transactions.

Furthermore, all durables are not maintaining the pace set in the early part of last year.

There are indications that both passenger cars and trucks are enjoying less active sales than earlier, and many other consumer durables are still backing up in inventories.

Inventories, having moved up sharply in 1951 from \$62 billion to \$70 billion, appear for the time to be leveling off, but this in itself can be expected to have an adverse effect upon business activity.

Slump in soft goods is being reflected in the general price structure. The level of wholesale prices declined moderately in January, and again in February.

Average prices of farm products and articles processed therefrom are continuing a steady decline, with weakness apparent in foods, textiles, and leather products.

Along with these, there have been recent declines in most fuels, some chemicals, and in rubber.

On the other hand, all kinds of metals continue to press against the ceilings imposed by price controls.

Furthermore, actual signs of economic weakness are nowhere acute in the national economy. To the contrary, there are a number of signs of strength.

Probably in the forefront of these latter is the showing currently being made by the construction industry.

A marked drop in construction activity was anticipated in most quarters for the early part of 1952. In January, however, construction ran five per cent ahead of the first month of last year, and in February only a moderate decline occurred.

Another indicator of strength is to be seen in plans of business to continue expansion of plant and equipment at a substantial rate for the near future.

Bank loans for this purpose have risen sharply in recent weeks after taking a dip in January and early February.

Summed up, indications appear to be that a high level of activity may be anticipated for a number of months ahead, but that the situation will not be such as to warrant additional controls or even all of those now in effect.

#### REGIONAL ASPECT

From a regional standpoint, a surprising and encouraging element is to be seen in the relative strength being displayed by Southern industry.

In contrast to this time last year when the South appeared to be swinging into boom stride more slowly than its potential warranted, the Region now is setting the pace for National industry.

This is the more remarkable from the fact that the South's industrial machine is largely geared to nondurable production and is not yet fully equipped to get the most possible gain from defense activities.

At the same time it is easy to see that great strides have been taken in that direction. Aircraft and ordnance production has stepped briskly ahead during the past twelve months, as have new plants designed to turn out agricultural and other machinery.

As a whole the South showed for January a three per cent gain in dollar value of manufactures as compared with January 1951; this, while the United States as a whole was suffering a slight loss of something less than one per cent.

New and modernized equipment in the South can be credited with a good part of this ostensible strength.

In construction also the South continues to lead, as it has during recent months, with a turnout nine per cent higher than a year ago, against the Nation's five per cent gain.

In other sectors, little change is to be noted, either nationally or regionally, but for total business volume the South stands two per cent ahead of a year ago, while the Nation is down somewhat less than one per cent.

Just how much these positions are due to latent strength, and how much must be attributed to the South's slow 1951 start cannot be determined just yet, but the next two months should give a good indication of what the final results will be at the 1952 year end.

Along with the South, the underdeveloped Mountain States show gain over last year. Pacific States are just holding their own, at a par with last year.

What weakness exists is to be found in traditionally industrialized regions where booms develop swiftly but where recessions come equally as fast when the going gets tough.

(Continued on page 13)

# When Time Counts - Count On — **CONNORS** — Reliable Service



Over the years CONNORS has built a well-earned reputation for dependability in the industry.

So if quality steel merchant bars are a component of your product, you can count on CONNORS for the reliable service your production schedules need and deserve.

Connors delivers on schedule...

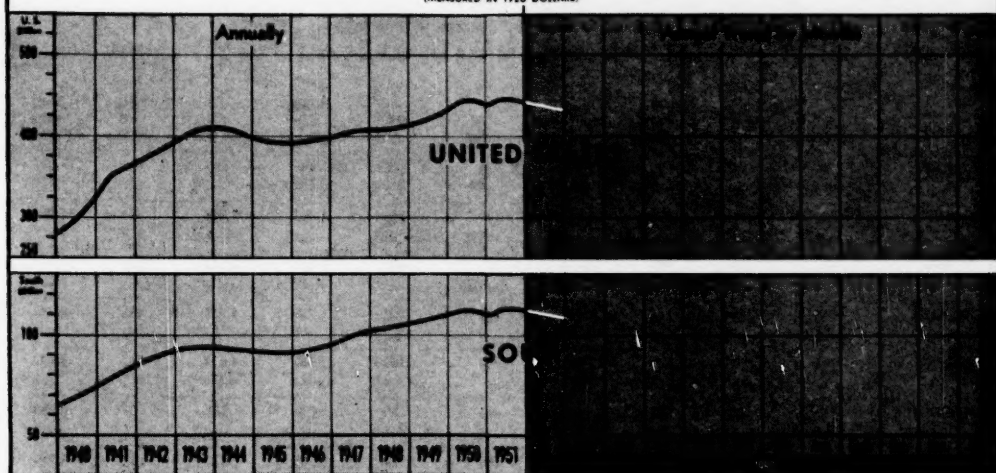
## CONNORS PRODUCTS

- Concrete Reinforcing Bars
- Merchant Bars
- Tobacco Hogshead Hoop
- Fence Posts
- Highway Sign Posts
- Cotton Bale Ties
- Hot Rolled Strip

## CONNORS STEEL COMPANY

DIVISION OF H. K. PORTER COMPANY, INC.  
BIRMINGHAM, ALABAMA

**PHYSICAL VOLUME**  
OF  
ALL GOODS TURNED OUT BY PRIVATE ENTERPRISE  
(MEASURED IN 1926 DOLLARS)



(Continued from page 11)

**Regional Indicators**

**Farm Marketings (\$ Mil.)**

	Jan. 1952	Dec. 1951	Jan. 1951
South .....	\$ 781	\$ 1,114	\$ 722
Other States .....	\$ 1,838	\$ 1,983	\$ 1,748
United States .....	\$ 2,619	\$ 3,097	\$ 2,470

**Construction (\$ Mil.)**

	Jan. 1952	Dec. 1951	Jan. 1951
South .....	\$ 734	\$ 722	\$ 649
Other States .....	\$ 1,426	\$ 1,496	\$ 1,391
United States .....	\$ 2,160	\$ 2,218	\$ 2,040

**Mineral Output (\$ Mil.)**

	Jan. 1952	Dec. 1951	Jan. 1951
South .....	\$ 574	\$ 541	\$ 585
Other States .....	\$ 506	\$ 522	\$ 521
United States .....	\$ 1,080	\$ 1,063	\$ 1,106

**Manufacturing (\$ Mil.)**

	Jan. 1952	Dec. 1951	Jan. 1951
South .....	\$ 4,621	\$ 4,442	\$ 4,463
Other States .....	\$ 15,726	\$ 15,739	\$ 16,002
United States .....	\$ 20,347	\$ 20,181	\$ 20,465

**National Indicators**

	Jan. 1952	Dec. 1951	Jan. 1951
Personal Income (\$ Bil.) .....	\$ 257.3	\$ 258.6	\$ 243.6
Ave. Weekly Earnings .....	\$ 66.79	\$ 67.36	\$ 63.76
Consumer Credit (\$ Mil.) .....	\$ 20,080	\$ 20,640	\$ 19,937
All Inventories (\$ Mil.) .....	\$ 70,083	\$ 70,092	\$ 62,050
Mfg. Inventories (\$ Mil.) .....	\$ 42,007	\$ 41,999	\$ 34,120
Trade Inventories (\$ Mil.) .....	\$ 28,076	\$ 28,093	\$ 27,930
Bank Debits (\$ Mil.) .....	\$ 123,059	\$ 129,549	\$ 123,224

	Jan. 1952	Dec. 1951	Jan. 1951
Ave. Weekly Hours .....	40.7	41.2	41.0
Carloadings .....	2,828	3,522	3,009
Consumer Prices ('35-'39=100) .....	189.1	189.1	181.5
Retail Prices ('35-'39=100) .....	210.6	210.8	202.4
Wholesale Prices ('47-'49=100) .....	113.2	113.5	116.5
Construction Costs ('39=100) .....	240.9	239.1	232.9
Electric Output (mil. kw.-hrs.) .....	39,710	38,489	36,726

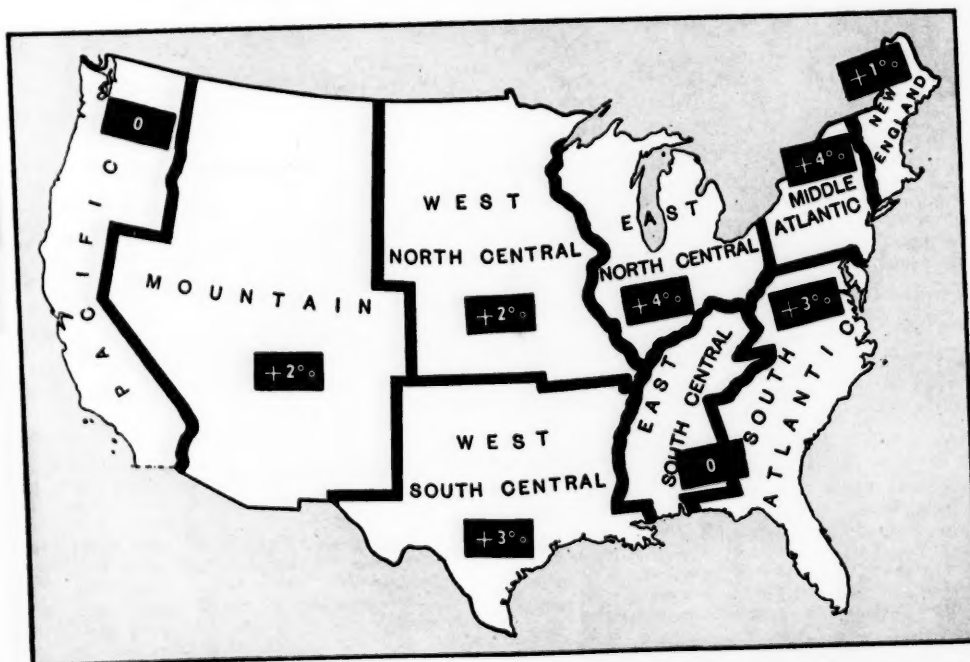
(Continued on page 14)

# NATIONAL BUSINESS VOLUME

(Continued from page 13)

Business Volume by Regions (\$ Million)  
January 1952 with gain (or loss) over January 1951

State	Farm- ing	Min- ing	Con- struc- tion	Manu- factur- ing	Util- ities	Fi- nance	Whole- sale Trade	Re- tail Trade	Service Trade	Busi- ness Volume
New Eng.	\$ 70 +1%	\$ 4 even	\$ 131 +19%	\$ 1,505 even	\$ 159 -4%	\$ 193 +3%	\$ 881 -9%	\$ 769 +2%	\$ 145 -1%	\$ 3,857 -1%
Mid. Atl.	169 -4%	120 -5%	430 +1%	4,995 -2%	720 +3%	765 +4%	4,751 -7%	2,364 -8%	737 +7%	15,051 -2%
E. N. Cen.	496 +1%	93 -1%	407 +9%	6,031 -5%	611 -3%	470 +3%	3,541 -9%	2,512 -4%	536 even	14,697 -2%
W. N. Cen.	749 -5%	78 -5%	167 +8%	1,586 +7%	280 -3%	207 +2%	1,753 -9%	1,126 -1%	195 +2%	6,141 -1%
S. Atl.	241 +17%	110 -4%	361 +17%	2,063 +2%	354 even	250 +4%	1,463 even	1,417 +4%	268 +5%	6,527 +3%
E. S. Cen.	250 +3%	76 -4%	108 +1%	825 -2%	144 even	85 +2%	730 +2%	558 -2%	107 +6%	2,883 even
W. S. Cen.	324 +12%	378 -1%	229 +4%	1,302 +10%	283 +4%	172 +9%	1,048 -6%	1,025 +5%	189 +2%	4,950 +3%
Mount.	216 +21%	118 +2%	87 -2%	315 +2%	119 +10%	58 +7%	347 -9%	392 +1%	76 +11%	1,728 +2%
Pacif.	307 +37%	103 -4%	240 -12%	1,725 +4%	305 +2%	257 +3%	1,349 -8%	1,169 -2%	323 +2%	5,778 even
U. S.	2,822 +6%	1,080 -3%	2,160 +5%	20,347 -1%	2,975 +1%	2,457 +4%	15,863 -7%	11,332 -2%	2,576 +3%	61,612 -1%

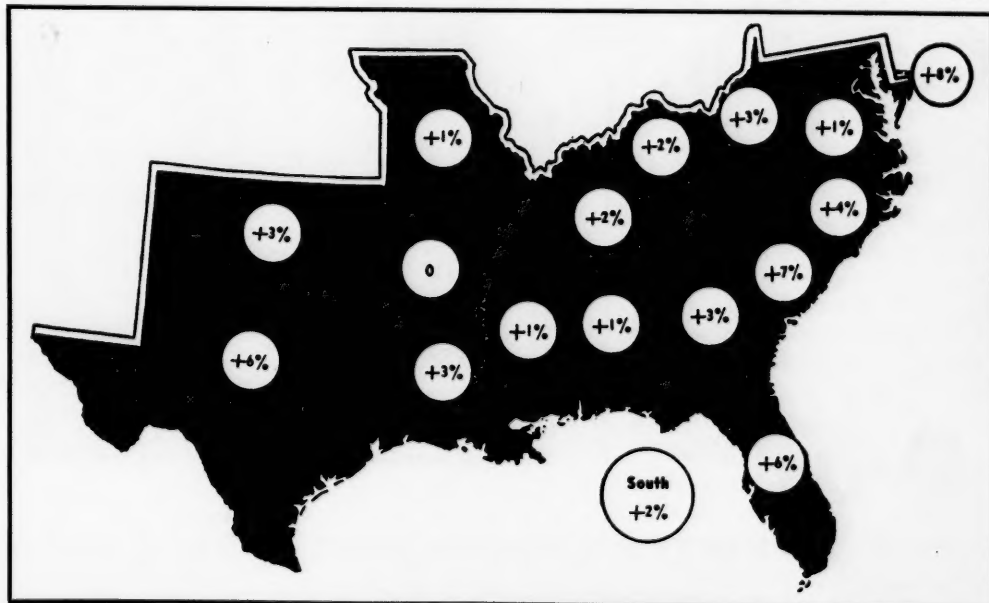


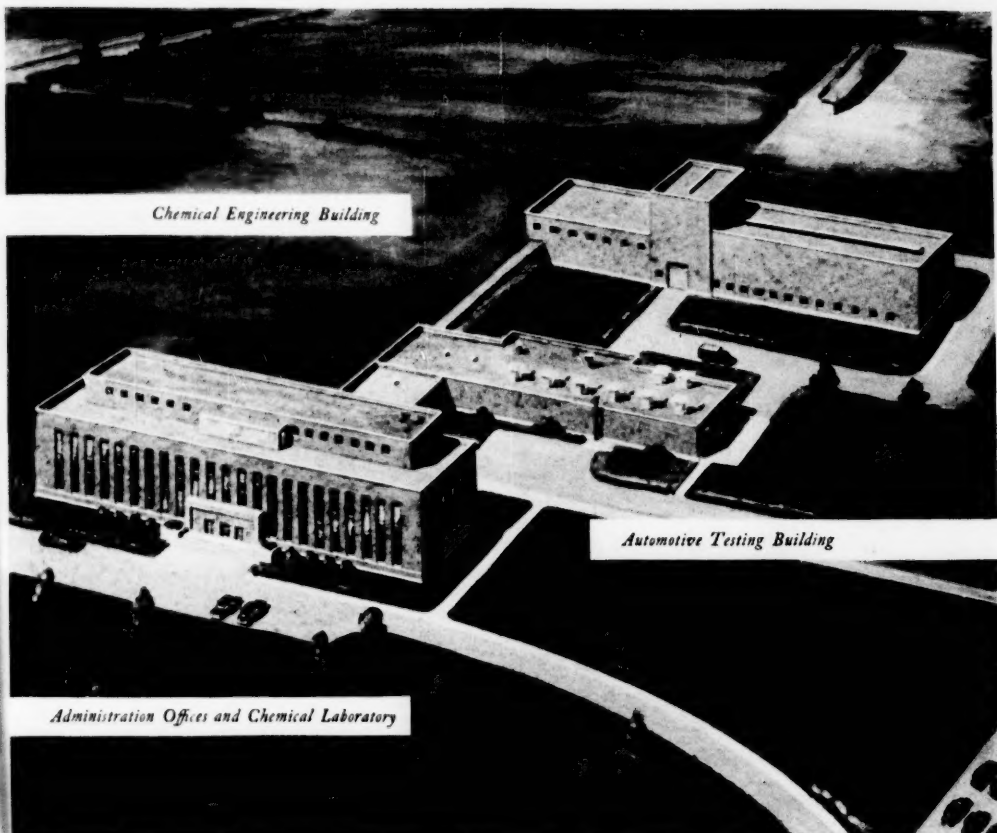
MANUFACTURERS RECORD FOR

# SOUTHERN BUSINESS VOLUME

Business Volume by States (\$ Million)  
January 1952 with gain (or loss) over January 1951

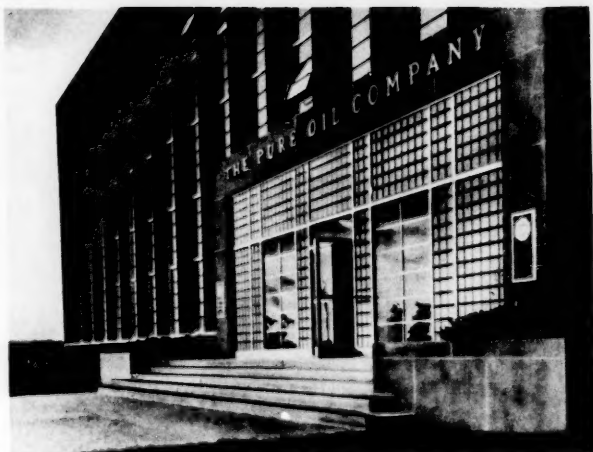
State	Farm- ing	Min- ing	Con- struc- tion	Manu- factur- ing	Util- ities	Fi- nance	Whole- sale Trade	Re- tail Trade	Service Trade	Busi- ness Volume
Ala.	\$ 30 +11%	\$ 13 -3%	\$ 33 +10%	\$ 236 +1%	\$ 40 +8%	\$ 25 +8%	\$ 137 +3%	\$ 137 -7%	\$ 27 +8%	\$ 678 +1%
Ark.	48 +14%	10 -3%	18 even	78 +4%	22 -4%	10 even	65 -15%	93 +1%	15 +7%	359 even
D. C.	—	—	22 even	22 +20%	22 even	31 even	124 -1%	123 even	32 +2%	376 even
Fla.	58 +26%	6 -3%	62 even	107 +9%	53 +8%	42 +2%	197 +4%	234 +4%	45 +4%	804 +6%
Ga.	44 +37%	3 even	43 -2%	314 +2%	51 +2%	37 +15%	287 even	187 +1%	42 +13%	1,008 +3%
Ky.	124 +10%	44 -2%	26 +13%	246 -3%	42 +2%	19 -5%	199 +9%	155 even	28 +7%	883 +2%
La.	40 +14%	64 +4%	33 -9%	212 -6%	61 +7%	28 +12%	163 -20%	165 +6%	26 -10%	792 -3%
Md.	20 +11%	1 even	46 -4%	321 +10%	50 -7%	41 even	212 +8%	194 +15%	34 -3%	919 +8%
Miss.	36 -18%	12 +2%	14 even	95 -2%	19 -4%	10 even	85 +5%	85 +1%	15 +15%	371 -1%
Mo.	89 -9%	10 +2%	45 +2%	476 +1%	93 +3%	72 +4%	626 -4%	310 even	70 +3%	1,791 -1%
N. C.	39 +34%	2 even	67 +45%	528 -2%	50 +4%	30 +3%	276 +5%	219 +9%	39 +2%	1,250 +4%
Okla.	48 +17%	48 -3%	29 +11%	151 +20%	36 even	24 even	144 -8%	147 -3%	30 +7%	657 +3%
S. C.	18 +50%	1 even	45 +95%	226 -2%	20 +5%	13 +8%	86 +11%	115 even	18 +6%	542 +7%
Tenn.	60 +1%	7 -3%	35 -12%	248 -5%	43 +2%	31 +3%	309 -4%	181 even	37 +2%	951 -2%
Tex.	188 +10%	256 -1%	149 +8%	861 +14%	164 +5%	110 +12%	676 -2%	620 +7%	118 +3%	3,142 +6%
Va.	41 -13%	13 -3%	54 +46%	349 +1%	60 +5%	37 +8%	170 -10%	201 +3%	36 +3%	961 +1%
W. Va.	13 +8%	84 -3%	13 -19%	151 +1%	38 even	12 -7%	75 -16%	113 even	18 even	517 -3%
South.	896 +8%	574 -2%	734 +9%	4,621 +3%	864 +2%	572 +5%	3,831 -2%	3,279 +3%	630 +4%	16,001 +2%





## Crystal Lake LABORATORY

When Pure Oil Company considered building a Research and Development Laboratory at Crystal Lake, Illinois, Stone & Webster Engineering Corporation was engaged to make preliminary studies and estimates. It later designed and furnished engineering supervision during the construction of the project.



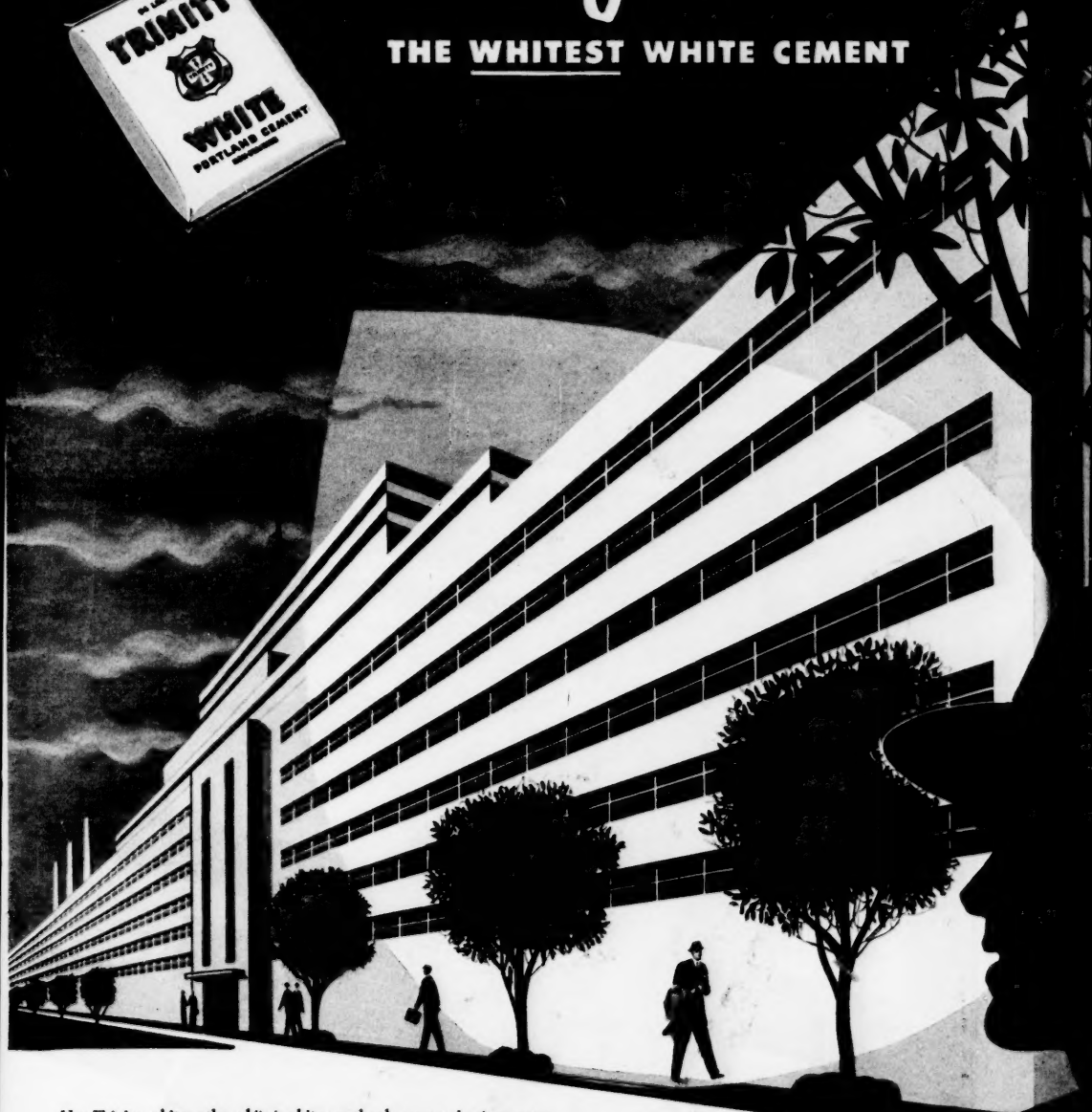
**STONE & WEBSTER ENGINEERING CORPORATION**

A SUBSIDIARY of STONE & WEBSTER, INC.



# Trinity White

THE WHITEST WHITE CEMENT



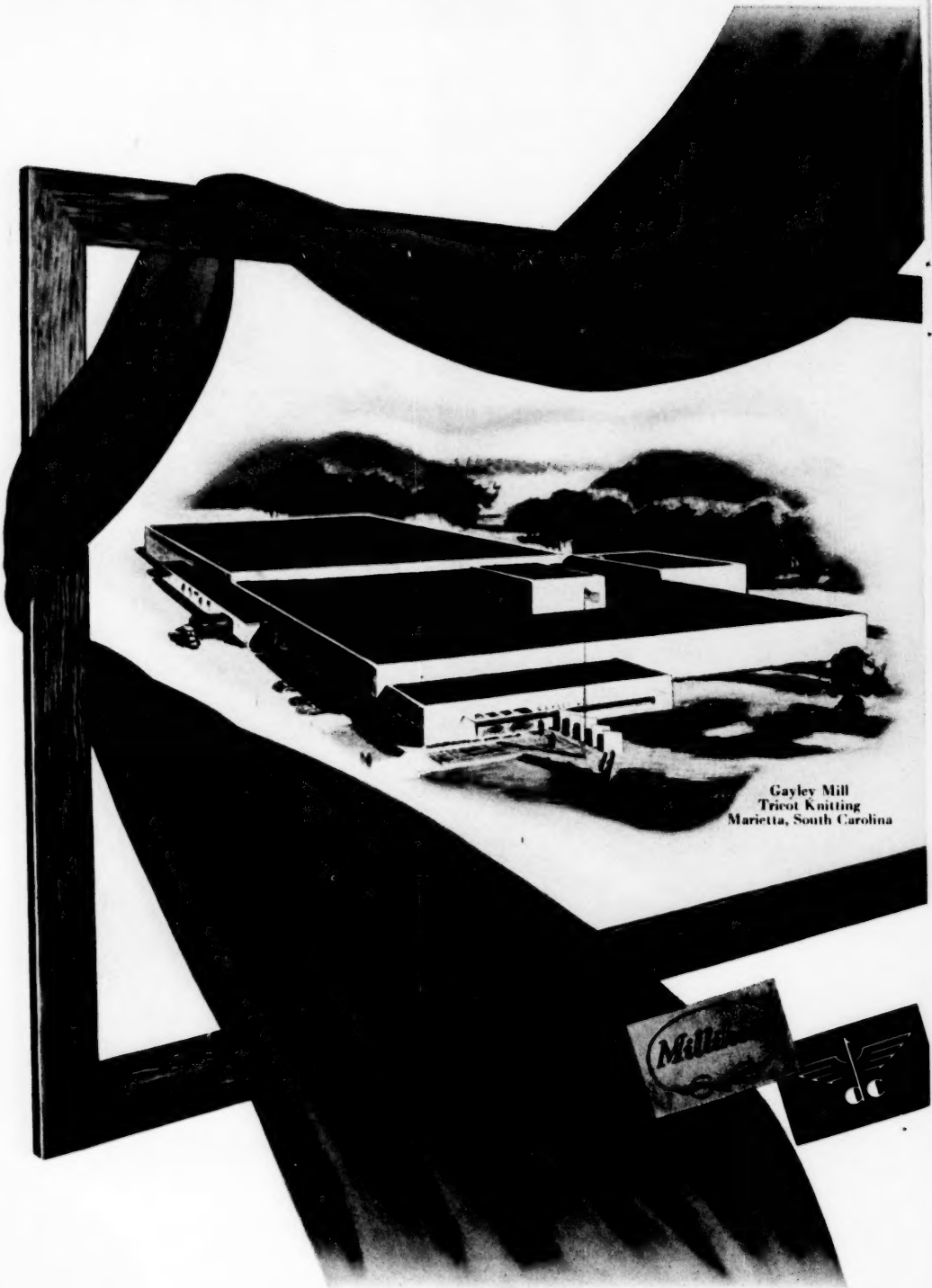
Use Trinity white—the whitest white portland cement. It gives extra eye-appeal to . . . architectural concrete units . . . stucco . . . terrazzo . . . cement paint.

Trinity has many special uses because of its beauty and light-reflective properties. Trinity white is a true portland cement that meets all Federal and ASTM specifications.

General Portland Cement Co., 111 W. Monroe St., Chicago; Republic Bank Bldg., Dallas, 816 W. 5th St., Los Angeles; 305 Morgan St., Tampa; Volunteer Bldg., Chattanooga.

*a true portland cement*

As white  as snow  
... plain or waterproofed

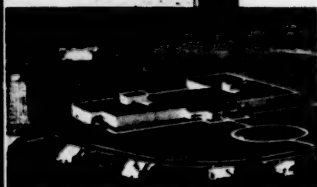


Gayley Mill  
Tricot Knitting  
Marietta, South Carolina

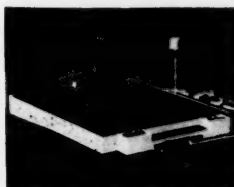


# *Built to produce Quality in Quantity*

The host of new synthetic textile fibres introduced during the past twenty-five years has made possible the development of whole new families of fabrics. It has also made necessary the design and construction of totally new types of mills. These nine Milliken mills are the result of Milliken research and development that find the proper ways to use the modern synthetic fibres such as Dacron, Nylon, Orlon, Acrilan and Vicara and develop new fabrics such as Milium—then turn plans into practical reality in terms of plants built to produce quality fabrics in quantity—built to provide a wide range of versatility for the manufacturer of all types of fabrics.



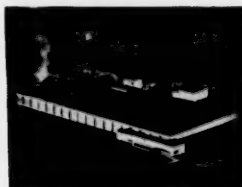
**Johnston Mill**  
Worsted Weaving  
Johnston, South Carolina



**Hatch Mill**  
Wool & Synthetic Weaving  
Columbus, North Carolina



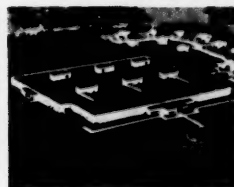
**Gerriah Milliken Mill**  
Nylon & Rayon Weaving  
Pendleton, South Carolina



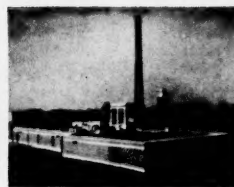
**Excelsior Mill #4**  
Milium & Worsted Finishing  
Pendleton, South Carolina



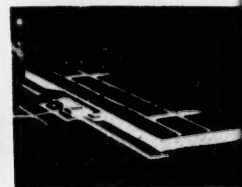
**Kingsley Mill**  
Rayon Weaving  
Thomson, Georgia



**McCormick Mill**  
Worsted Spinning  
McCormick, South Carolina



**Excelsior Mill #1**  
Woolen Manufacturing  
Union, South Carolina



**Excelsior Mill #2**  
Rayon Tire Cord  
Clemson, South Carolina

The lessons learned in the planning and building of the first of these new plants for the synthetic fibres have now been applied to plants for all fibres and the resulting production efficiency means economical manufacture of more than 500,000,000 yards of fabrics per year. Each of these mills, built to be functional parts of the manufacturing process, is totally enclosed, air-conditioned, finished in glazed tile throughout. They boast many "firsts" from the first mill of its kind to the first to use an air-conditioning spray pond as a decorative fountain.

These are just nine of forty-five major consecutive projects that the Daniel Construction Company has built for Deering, Milliken & Company. In addition to nearly 2,000,000 square feet of new plants, these projects include complete modernization of an additional 4,000,000 square feet of existing facilities, representing a total gross investment in new productive capacity in the neighborhood of \$80,000,000. We of the Daniel Construction Company deem it a privilege to have participated in this modern industrial revolution, a revolution that could occur only in our American system of free private enterprise, a revolution that brings more goods to more people at lower real cost.

**DANIEL CONSTRUCTION COMPANY, INC.**

**GREENVILLE, SOUTH CAROLINA**

**BIRMINGHAM, ALABAMA**



APRIL NINETEEN FIFTY-TWO

19

# NEW AND EXPANDING PLANTS

COMPILED FROM REPORTS PUBLISHED IN THE DAILY CONSTRUCTION BULLETIN

## ALABAMA

**ALABAMA**—Southern Natural Gas Co. plans \$75,000,000 expansion program.

**ANDALUSIA**—South Alabama Natural Gas District spending \$18,000,000 for transmission mains and distribution systems.

**ANNISTON**—Turner Dairies, Inc. \$37,706 dairy building; Richard Bolnest, 1021 Montvue Ave. Anniston, Archt.

**BIRMINGHAM**—Construction Materials Co. c/o J. A. Jones, plans warehouse-mfg. and office-storage buildings, East Thomas-Jasper Highway, cost approx. \$70,000.

**BIRMINGHAM**—Goodyear Tire & Rubber Co., Akron, Ohio, district bldg.; Horace M. Weaver & Co., 2917 Highland Ave., Archts.

**BIRMINGHAM**—Harnischfeger Corp., Milwaukee, Wis., warehouse.

**BIRMINGHAM**—McVane Cast Iron Pipe Co., NPA approval for \$3,000,000 pipe production unit.

**BIRMINGHAM**—Wood Chevrolet Co. re-modeling office building and show rooms, cost \$35,000.

**EUFULA**—Meade Paper Mfg. Co. of Ohio has option on 300 acres on Georgia side of Chattahoochee River.

**GADSDEN**—Jack Cole Co., Inc., 1900 Vanderbilt Road, Birmingham, motor freight terminal; Greer, Holmquist & Chambers, Stallings Bldg., Birmingham, Archts.

**GADSDEN**—Goodyear Tire & Rubber Co., \$1,411,600 warehouse and office building; Horace Weaver, 2917 Highland Ave., Birmingham, Archt.

**LANETT**—Lanett Bleachery & Dye Works, \$350,000 additions.

**WOODWARD**—Woodward Iron Co. general office building; Nelson Smith, Brown-Marx Bldg., Birmingham, Archt.

## ARKANSAS

**ARKANSAS**—Arkansas Power & Light Co. plans \$90,000,000 expansion program in next four years.

**ARKANSAS**—Southwestern States Telephone Co., D. T. Strickland, General Mgr., \$2,500,000 new construction by 1963.

**BATESVILLE**—Westmoreland Manganese Corp., \$1,500,000 plant in Batesville-Cushing area. Project would get \$3,500,000 Federal funds for development of domestic manganese supply.

**BETHLEHEM**—Arkansas Missouri Power Co. applied to FPC for pipelines and other facilities to provide natural gas service in Ark and Mo. cost \$4,000,835.

**LITTLE ROCK**—Central Arkansas Telephone Cooperative has REA loan of \$219,000 for improving and extending service in Hot Spring County.

**LITTLE ROCK**—Radio Station KTHS has FV approval to move station from Hot Springs.

**McGHEE**—McGhee Grain Drying Cooperative Association, \$250,000 expansion of grain dryer storage capacity.

## DISTRICT OF COLUMBIA

**WASHINGTON**—Washington Gas Light Co., Everett J. Boothby, Pres., plans \$9,400,000 construction during 1952.

## FLORIDA

**DADE COUNTY**—A. R. Realty Co., to erect Manufacturing Bldg., 5520 N.W. 35th Ave.

**DADE COUNTY**—Kensington Realty Co. manufacturing building, N.W. 75th St. & 21st Ave., \$68,835; Wm. E. Kittle, 1233 Lincoln Road, Miami Beach, Archt.

**DADE COUNTY**—C. A. Knight, 9200 N.W. 14th Ave., Miami, factory building and apartment, 2804 N.W. 35th St., cost \$27,000; Harry E. Penney, 7251 Red Road, South Miami, Archt.

**FOLLEY**—Buckeye Cellulose Corp., subsid. of Procter & Gamble Co., \$20,000,000 plant.

**MIAMI**—A. N. Brady Wholesale Hardware, Inc., 1536 N. Miami Ave. plan \$145,972 warehouse, N.W. 71st St. bet. 7th & 8th Aves.

**MIAMI**—Gregg Motors, Inc., 4831 N.W. 7th Ave., motor sales and service building, S.W. 22nd Ave. & 8th St., Wm. E. Tschumy, 235 Douglas Road, Coral Gables, Archt.

**MIAMI**—General Mills, Inc., 7275 N.W. 7th Ave. plan \$70,000 grain bin.

**MIAMI**—Skillaw, Inc., c/o Guy Perry, 1011 S.W. 27th Ave., office building and warehouse, N.W. 2nd Ave. & 43rd St.; Charles Paul Nieder, 1104 Avenue C 20th St., Airport (office) and 32 Calabria Ave., Coral Gables (mail), Archt.

**MIAMI**—Spector & Sons, 575 S.W. 22nd Ave., to construct warehouse, 301 N.E. 73rd St.; cost \$40,000; Charles Paul Nieder, 1104 Avenue C 20th St., Airport, Archt.

**MIAMI**—Styl-Rite Optical Co., manufacturing building, 3322 N. Miami Ave., \$31,000; Harry C. Schwebe, Sr., 95 S.W. 49th Ave., Miami, Archt.

**OPA-LOCKA**—Opa-Locka Airport, H. M. Herring, construct manufacturing building, 1347 N.W. 25th Ave.

**ORLANDO**—Electronics Devices Co., Dr. C. P. Sweeney, Pres., moved mfg. plant from Pulaski, Va.; will specialize in developing electronic sewing machine.

**ORLANDO**—Johnson Electronics, E. S. Johnson, Pres., established manufacturing plant.

**PORT ST. JOE**—Port St. Joe Paper Co., Roger L. Main, Pres., \$2,000,000 water supply system under way; part of \$25,000,000 expansion.

**WINTER PARK**—Winter Park Telephone Co., \$21,888 addition to dial exchange building; James Gamble Rogers, II, Archt.

## New and Expanding Plants

Reported in March—164

Total for

First Three Months of 1952

431

First Three Months of 1951

565

## GEORGIA

**GEORGIA**—Southern Natural Gas Co. plans \$78,000,000 expansion program.

**ALBANY**—Merck & Co., Inc., Rahway, N. J., chemical plant.

**ATLANTA**—Armour Fertilizer Works plans office building; John W. Cherry, Archt.

**AUGUSTA**—U. S. Atomic Energy Commission approved contract of du Pont Co. with S. C. Generating Co. for 30,000 kw of electric service to AEC's Savannah River plant in S. C.

**HAMPTON**—Southern States Equipment Co. plan addition; Moscovitz Willner & Milkey, 761 Peachtree St., N.E., Atlanta, Archts.

**JASPER**—Amicalola Electric Membership Corp. headquarters building.

**ROME**—Georgia Power Co. plans \$46,000,000 new construction in 1952; new \$5,100,000 generating plant near Brunswick; two steam elec. generating units at Plant Hammond, nr. Rome, cost \$5,100,000; and \$800,000 k.w. unit at Plant Hammond.

## KENTUCKY

**HARRISBURG**—Corning Glass Works, Wm. C. Decker, Pres., Corning, N. Y., plans optical glass plant.

**LOUISVILLE**—Louisville Gas & Electric Co. plans \$32,000,000 expansion program during next two years.

**TOMPKINSVILLE**—City authorized \$50,000 bond sale to acquire land and erect garment factory to be leased to K. W. Pollock of Fort Scott, Kansas.

## LOUISIANA

**LOUISIANA**—Cities Service Pipe Line Co., affiliate of Cities Service Oil Co., plans pipeline from Sour Lake, Tex. to Lake Charles, La.

**CHALMETTE**—Kaiser Engineers, Inc., have work under way for driving approx. 16,000 piles, part of expansion program of Kaiser Aluminum Corporation.

**GOLDEN MEADOW**—LaFourche Telephone Co. has REA loan of \$460,000 for additional lines.

**KENNER**—B. & Q. Construction Co., 511 N. Villere St., New Orleans, has contract for new Studebaker Parts Depot Building, Di-bolt-Kessels & Assocs., Archts.-Assoc. Engrs., 637 Pere Antoine Alley, New Orleans.

**LAKE CHARLES**—Borden Co., alterations and additions to present plant, 1500 Ryan St., \$32,560; Dunn & Quinn, Lake Charles, Archts.

**LAKE CHARLES**—Continental Oil Co. plans expansion.

**LAKE CHARLES**—Davison Chemical Corporation, to build \$7,000,000 catalyst plant on Calcasieu River.

**NEW ORLEANS**—Gold Seal Creamery Co. plans addition to present plant, 520 S. Alexander St., Patrick M. Allison & Assocs., 315 St. Charles St., Archts.-Engrs.

**NORCO**—Shell Oil Co. plans \$30,000,000 expenditure at refinery.

**SHREVEPORT**—Southern Bell Telephone & Telegraph Co. of Atlanta Ga., telephone exchange building at McNeil & Crockett Sts., cost \$61,455; Armistead & Sagers, Atlanta, Ga., Archts.

## MARYLAND

**MARYLAND**—National Production Authority announced following list of located metals for plant-expansion projects in April-June quarter: Bethlehem Steel Co., Baltimore, \$33,352,000 for making of iron and steel; Bethlehem Steel Co., \$19,500,000, pig iron, steel ingots; Bethlehem Steel Co., \$4,297,000, iron and steel; Bethlehem Steel Co., \$60,000, galvanized wire; Bethlehem Steel Co., \$50,000, cinder and mixing cars; Celanese Corporation of America, Cumberland, \$32,000, cellulose acetate yarns; Celanese Corporation of America, \$700,000, fortisan yarns; Glenn L. Martin Co., \$61,800, electronics control; Fairchild Engine and Aircraft Corp., Hagerstown, \$500,000, aircraft; Celanese Corporation of America, \$875,000, cellulose acetate; Philadelphia Quartz Co., Baltimore, \$88,100, sodium silicates; Procter & Gamble Co., Baltimore, \$123,710, soap and glycerine; Davison Chemical Co., Baltimore, chemicals; Comfort Spring Corp., Baltimore, \$350,000, springs; General Refractories Co., Baltimore, \$2,040,530, basic refractory brick; Harbison-Walker Refractories Co., Baltimore, \$2,054,908, basic refractory brick; J. L. Klotz & Co., Inc., Baltimore, \$160,000, iron and steel scrap; Black & Decker Co., \$1,200,000 electric tools; West Virginia Pulp and Paper Co., Luke, \$3,527,000, newsprint; West Virginia Pulp and Paper Co., \$1,000,000, sulphate pulp; West Virginia Pulp and Paper Co., \$377,500, electric power.

**BALTIMORE**—Baltimore and Ohio Railroad plans \$32,000,000 improvement and new equipment in 1952.

**BALTIMORE**—Baltimore Porcelain Steel Corp., Wicomico St., Mt. Wm., \$24,000 addition to manufacturing bldg., 2121-25 Wicomico St.

**BALTIMORE**—Consolidated Gas Electric Light & Power Co. plans \$65,000,000 construction program.

**BALTIMORE**—Continental Oil Co., \$20,000 retaining wall, 3441 Fairfield Rd.

**BALTIMORE**—The Ellicott Machine Corp., machine shop addition, 1611 Bush St., \$30,000.

**BALTIMORE**—Esso Standard Oil Co., Boston & Dean Sts., to construct five tanks at \$400,000.

**BALTIMORE**—Joseph A. Fulker, 4925-27 Belair Road, \$20,000 repair shop, 4202 Valley View Ave.

**BALTIMORE**—General Plumbing Supply Co., 919 E. Lombard St., office and warehouse, 1829 Edison Highway, Finney, Wolcott & Assocs., 320 W. 24th St., Archts.

**BALTIMORE**—Charles A. Knott, \$30,000 manufacturing building, 2240 Annapolis Ave.

**BALTIMORE**—Perma-Rock Products, Inc., 19 W. Franklin St., storage building, 2315 Severn St.

**BALTIMORE**—Recipe Foods, Inc., two office buildings, 4805-15 Garrison Blvd., cost \$28,000; Sidney Kalin, 2505 W. Cold Spring Lane, Archt.

**BALTIMORE COUNTY**—Harry T. Campbell Sons Corp., Towson, plans Storage and warehouse, Pulaski Highway.

**CUMBERLAND**—Potomac Electric Power Co. awarded Halsey Stuart & Co., Inc., \$15,000,000 bond issue, due 1987.

**HALETHORPE, IND. BR. BALTIMORE**—Kaiser Aluminum & Chemical Corp., Oak-

(Continued on page 22)

LINCOLN MEMORIAL, WASHINGTON, D. C. • PHILADELPHIA INQUIRER, PHILADELPHIA, PA. • DAILY NEW BUILDING, NEW YORK CITY • INTERNATIONAL SHOE CO., ST. LOUIS, MO. • MARSHALL FIELD & CO., CHICAGO, ILL. • CHRISTIAN SCIENCE MONITOR BUILDING, BOSTON, MASS. • JEFFERSON COUNTY COURTHOUSE, BIRMINGHAM, ALA. • BANKERS LIFE BUILDING, DES MOINES, IOWA • NEW YORK HOSPITAL—CORNELL MEDICAL COLLEGE, NEW YORK • UNITED NATIONS SECRETARIAT, NEW YORK • HERSHEY CHOCOLATE COMPANY, HERSHEY, PA. • EMPIRE STATE BUILDING, NEW YORK • CHRYSLER BUILDING, NEW YORK • R. C. A. BUILDING, NEW YORK • WALDORF-ASTORIA NEW YORK • JOHN WANAMAKER, WILMINGTON, DEL. • NEW YORK CENTRAL BUILDING, NEW YORK • AETNA LIFE INSURANCE BUILDING, HARTFORD, CONN. • LOUISIANA STATE CAPITOL, BATON ROUGE, LA. • ATOMIC ENERGY COMMISSION, OAK RIDGE, TENN. • U. S. SUPREME COURT BUILDING, WASHINGTON, D. C. • AMERICAN TOBACCO CO., RICHMOND, VIRGINIA • PHILADELPHIA SAVINGS FUND SOCIETY BLDG., PHILADELPHIA, PA. • CHICAGO POST & TRIBUNE, CHICAGO, ILL. • LIGGETT & MYERS TOBACCO CO., RICHMOND, VA. • NATIONAL BOARD OF FIRE UNDERWRITERS, CHICAGO, ILL. • CHEVROLET MOTOR CO., INDIANAPOLIS, IND. • CURTISS-WRIGHT, BIRMINGHAM, NEW YORK • FORD MOTOR CO., HAPEVILLE, GA. • COCA-COLA BOTTLING CO., ALEXANDRIA, LA. • B. F. GOODRICH CO., TUSCALOOSA, ALA. • AMERICAN SECURITY CO., NEW YORK, N. Y. • B. F. GOODRICH CO., NEW YORK, N. Y. • B. F. GOODRICH CO., NEW YORK, N. Y.

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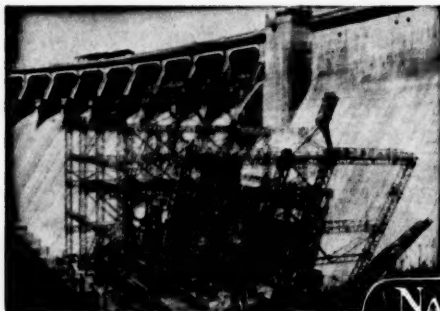


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**NASHVILLE BRIDGE COMPANY**  
NASHVILLE, TENN. — BESSEMER, ALA.

## NEW AND EXPANDING PLANTS

(Continued from page 20)

land, Calif., \$9,000,000 aluminum extrusion plant.

**STREET**—The H. P. White Co. plan laboratory. Shaw & Duff, Bel Air, Md., Architects.

### MISSISSIPPI

**MISSISSIPPI**—Southern Natural Gas Co. plans \$76,000,000 expansion program.

**CALHOUN CITY**—Calhoun Garment Co., Town voted \$75,000 bond issue for building enlargement and extension.

**GULFPORT**—Daily-Gulfport-Biloxi Herald, plan addition to present building at \$42,850. Smith & Dawson, Legion Bldg., Architects.

**GULFPORT**—Southern Bell Telephone & Telegraph Co. plan 1-story office building on 24th Ave. bet. 14th & Railroad Sts., cost \$39,199.

**HOLLY SPRINGS**—Board of Supervisors of Marshall County to vote on \$1,200,000 bond issue for \$5,000,000 electronics industry.

**JACKSON**—O'Neal Steel Works Co., 745 N. 41st St., Birmingham, Ala., acquired 13 acres for warehouse.

**MERIDIAN**—City Council to receive bids on \$6,500,000 bond issue for Textile Plant.

**TULSA**—Hunter-Sadler Co., John Hunter, Sr., Pres., acquired 5 acre site on Highway 45 for new warehouse.

**VICKSBURG**—Spencer Chemical Co., Pittsburgh, Kans., administration building, \$108,990. Spain & Biggers, Deposit Guaranty Bank Bldg., Jackson, Architects-Engrs.

### MISSOURI

**CLAYTON**—Marine Underwriters (Flores-Watts Co.), 10 S. Benton Ave., office building addition. Russell, Mullgardt, Schwarz & Van Hoefen, Chemical Bldg., Architects.

**OVERLAND**—Southwestern Bell Telephone Co., G. J. Vandie Steeg, Chief Engr., 1010 Pine St., plan Tucker Dial Building, St. Charles Rock Rd. & Woodson Rd. Clarence E. Overbeck, Archt.

**ST. LOUIS**—Be-Mac Transport Co., Inc., 1316 N. 14th St., office building, dock, garage and service station. North Broadway and

Calvary. Syl. G. Schmidt & Assocs., Railway Exchange Bldg., Architects-Engrs.

**ST. LOUIS**—F & R Fluorspar Co., E. Flinn, Pres., being formed to import from Mexico.

**ST. LOUIS**—Monsanto Chemical Co. acquired property on Third St. at Ceyer Ave. for future expansion.

**ST. LOUIS**—Owens-Illinois Glass Co., 3615 Olive St., office alterations. Preston J. Bradshaw & Assocs., 1800 Olive St., Architects.

### NORTH CAROLINA

**CHARLOTTE**—Morris Spelman, 2307 N. Davidson St., textile machinery plant. Mangum W. Sloan, Charlotte, Archt.

**GASTONIA**—Akers Motor Lines, office building. James C. Wise, 305 Techwood Drive, N.W., Atlanta, Ga., Archt.

**GRANITE QUARRY**—Eastern Rowan Telephone Co., Inc., exchange, garage and storage building, \$15,385.

**GREENSBORO**—Greensboro Mfg. Co. plan new plant. Loewenstein & Waugh Assocs., Architects.

**GREENVILLE**—Carolina Broadcasting System plans erection of 500-ft. television tower.

**HICKORY**—Gorham Manufacturing Co., Edmund C. Mayor, Pres., Providence, R. I., considering establishing branch plant.

**HIGH POINT**—Sylvania Electric Products, Inc., Arthur L. Chapman, Vice-Pres. & Gen. Mgr., New York, N. Y., acquired Strickland Bldg. and machinery. Nathan Hunt Drive, to manufacture television cabinets.

**HIGH POINT**—The Vox Paper Co., George E. Hutchens, Pres., Lockland, Cincinnati, O., will locate in new building, 1221 Ward St., to fabricate wrappings for furniture and allied trades.

**MITCHELL**—Southeastern Mica Co., \$32,000 mica processing plant.

**N. WILKESBORO**—Central Telephone Co., building alterations. Macklin & Stinson, Winston-Salem, Archt.

**WENDELL**—Wendell Industries, plan new building.

**WINSTON-SALEM**—Caroline Power & Light Co., electric power plant in New Hanover County.

### OKLAHOMA

**TULSA**—Midwestern Engine & Equipment Co., O. E. Murrey, Pres., \$100,000 building, 4615 Sapulpa Road.

### SOUTH CAROLINA

**LANCASTER**—Lancaster Telephone Co., dial and toll office building. R. Edwin Wilson, AIA, & John C. Higgins, Jr., Charlotte, N. C., Architects.

**LAURENS**—Piedmont Telephone Cooperative, Inc., spending \$302,089 for rural telephone lines.

**LIBERTY**—Julius Kayser & Co., T. H. Mueller, Pres., of New York, N. Y., \$1,000,000 hosiery finishing and dyeing plant.

**NEWBERRY**—Clinton-Newberry Natural Gas Authority plan \$2,930,000 distribution system and transmission main.

**ST. MATTHEWS**—St. Matthews Telephone Co. has REA loan of \$182,000 to improve and extend service. Calhoun & Orangeburg Counties.

**SPARTANBURG**—Burton Manufacturing Co., Arnold W. Burton, Partner, New York, N. Y., interested in establishing garment mfg. plant on Main St.

### TENNESSEE

**CHATTANOOGA**—Furlow-Cate Co., \$23,050 addition to brick building, South Broad St.

**COLUMBIA**—Shea Chemical Co., \$3,000,000 plant to mfg. di-calcium phosphate.

**DICKSON**—Saf-T-Carrier Corp., New York, N. Y., acquired old Oakmont School for manufacture of hospital equipment.

**MEMPHIS**—E. H. Crump & Co., alterations and additions to office. Harker & Hever, Commerce Title Bldg., Architects.

**MEMPHIS**—Southern States Iron Roofing Co., \$75 Royal, awarded \$8,000,000 Navy contract for prefabricated metal buildings.

### TEXAS

**TEXAS**—Cities Service Pipe Line Co., affiliate of Cities Service Oil Co., plans pipe (Continued on page 154)

## IN THE TRINITY INDUSTRIAL DISTRICT



**"Under the Skyline of Dallas"**

The new 30,000 square foot factory and office building of the

**SQUARE D COMPANY**

For information on the Trinity Industrial District consult your real estate broker or...

**INDUSTRIAL PROPERTIES CORPORATION, 401 Republic Bank Building • RI 6552, Dallas**

# Cheairs Porter says, "Most of Our Best Customers Read Farm and Ranch Southern Agriculturist"



Cheairs Porter is the President of the successful hardware firm of Porter Walker Hardware Co., Inc., of Columbia, Tennessee and is also a farmer in this community. Founded in 1907, Porter Walker Hardware Co., Inc., is now the largest hardware firm in the Columbia trading area and depends, to a major degree, upon its 12,000 farm families for a flourishing, prosperous business.

Mr. Porter went on to say, "I have checked over the Maury County subscription list of Farm and Ranch-Southern Agriculturist and I am greatly impressed with the number of our leading farmers who subscribe to your magazine. Over 75% are good customers of ours. These people are among the best farm families in this territory.

"In our trading area there are 12,724 farms of which 9,317 are electrified. These families are the backbone of our business. From the outset in 1907, the farmer has been our best and most consistent customer. In the early stages our billing was every six months. Electrification and crop diversification have changed all that. Now our billing is on a 30-day basis and without the farmer we would be out of business.

"Even during the depression it was the farmer who kept us going. Town families stopped buying, but not the farmers. They had to keep buying to operate their farms . . . without their business we would have closed our doors.

"National advertisers doing business in areas like ours should realize that the farmer is the man to be sold. When over 75% of your subscribers are our customers it stands to reason that we will do more business on products which are advertised in Farm and Ranch-Southern Agriculturist."

## Special Notice to Sales Managers, Advertising Managers and Media Directors.

What Mr. Porter has to say about the Southern Farm Market is fully substantiated by the agricultural statistics in the 1950 census. We are preparing a state-by-state digest of these figures as they are released. We will be happy to mail them to you as they come off the press.

# FARM AND RANCH

## SOUTHERN AGRICULTURIST

NASHVILLE, TENNESSEE

More Southern Farm Families read Farm and Ranch-Southern Agriculturist than any other publication . . . circulation guarantee—1,290,000.

APRIL NINETEEN FIFTY-TWO

Just sign the coupon  
and mail it to us.

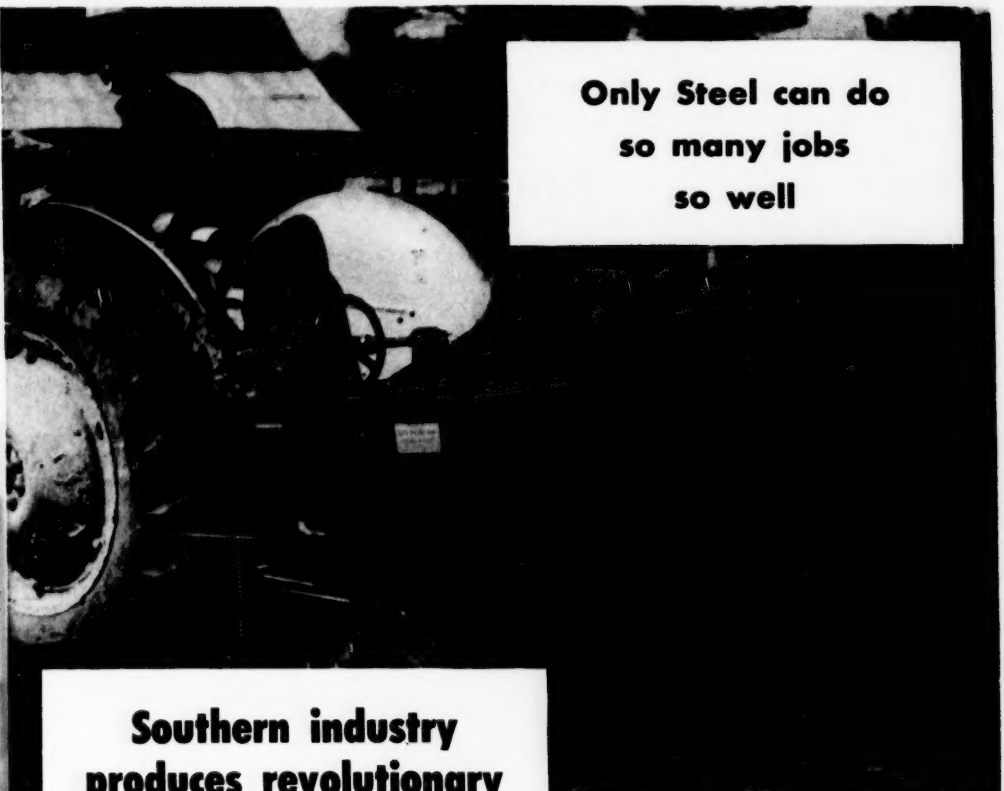
↓

NAME \_\_\_\_\_ FIRM \_\_\_\_\_ ADDRESS \_\_\_\_\_ CITY \_\_\_\_\_ ZONE \_\_\_\_\_ STATE \_\_\_\_\_

MAIL TO: FARM AND RANCH-SOUTHERN AGRICULTURIST, DEPT. MR. 4, NASHVILLE, TENN.

Please put this in your mailing list for state-by-state Digest of 1950 agricultural statistics.





**Only Steel can do  
so many jobs  
so well**

**Southern industry  
produces revolutionary  
farm tool for southern agriculture**

• The Pasture Dream is considered by many agricultural people to be one of the most helpful pasture improvement implements offered to southern livestock raisers in many decades. In a single operation, it can seed, fertilize and renovate a pasture—all without damage to existing sod. Not only does the Pasture Dream prolong the service life of a pasture, it also maintains constant natural protection from erosion during renovation. It is an efficient, time-saving farm implement that will advance the southern livestock industry.

The Pasture Dream is manufactured by Taylor Machine Works, Louisville, Miss., and T.C.I. Agricultural and Metallurgical Engineers have aided this and many other manufacturing customers in developing products. Our engineering staff is always available for consultation on the application of steel to new industrial and agricultural situations.

The partnership of industry and agriculture in the South is the key to an increasingly productive economy that will benefit all Southerners.

**U-S-S STEEL PRODUCTS MADE OR DISTRIBUTED BY T.C.I. INCLUDE:**

- Rolled, forged and drawn steel products
- Structural shapes, plates, bars, small shapes, agricultural shapes, tool steel, ship, floor plate, cotton ties.
- Steel sheet piling and H-bearing piles, bridge flooring
- Concrete reinforcing bars, reinforcing mesh
- Black, galvanized and special finish sheets.
- Rails, track accessories, wheels, axles, forgings.
- Wire and wire products, including woven wire fencing, barbed wire, bale ties, nails.
- Wire rope.
- Electrical wires and cables.
- U-S-S High Strength Steels and U-S-S Abrasion-Resisting Steels.
- U-S-S Stainless Steel.
- Ground Open Hearth Basic Slag.

**TENNESSEE COAL & IRON DIVISION**

**UNITED STATES STEEL COMPANY, GENERAL OFFICE: FAIRFIELD, ALABAMA**

DISTRICT OFFICES: CHARLOTTE • FAIRFIELD • HOUSTON • JACKSONVILLE • MEMPHIS • NEW ORLEANS • TULSA

UNITED STATES STEEL EXPORT COMPANY, NEW YORK



**UNITED STATES STEEL**

# Look into the LAND OF PLENTY



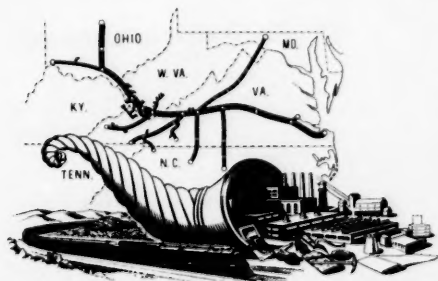
Some of the finest industrial plants in the nation are located in *The Land of Plenty*, the six great states served by the Norfolk and Western Railway\*. Some of these factories are big, with many years of continued successful operation. Some are small, and young, and full of promise. Together, they represent hundreds of different types of industry.

If this wide industrial diversification can find, in *The Land of Plenty*, the advantages needed for successful operation and growth, *so can you*.

Let the Norfolk and Western tell you about this territory's raw materials . . . its workers with ability and stay-bility . . . power and water . . .

dependable N&W rail service . . . fair real estate values . . . the world's finest bituminous coal, for power and processing . . . reasonable state and local tax structures . . . clean, pleasant communities . . . good climate . . . nearness to domestic markets and good accessibility to world markets through the year-round ice-free Port of Norfolk on famed Hampton Roads. And there's *plenty of room to grow*.

**LOOK INTO THE LAND OF PLENTY!**



Write the Industrial and Agricultural Dept., Drawer B-502, Norfolk and Western Railway, Roanoke, Va. These plant location specialists are at your service, without obligation and in confidence. Their job is to help you find the location tailored to fit your needs.

## Norfolk and Western RAILWAY

\*Virginia, West Virginia, Ohio, North Carolina, Maryland and Kentucky.

## Need Steel? Call O'Neal

Customers find two big advantages at O'Neal: Large stocks carried and the attitude of the people.

You get service—the kind of prompt service you want. Overnight delivery is frequently possible.



*Birmingham structural yard (before Korea)*

- Angles
- Channels
- I-Beams
- Bars
- Hot Rolled Sheets
- Cold Rolled Sheets
- Galvanized Sheets
- Wide Flange Beams
- Plates
- Floor Plates
- Rounds
- Tees
- Cold Finished Bars

## New O'Neal Plant, Jackson, Miss.

To step up service in Mississippi, Louisiana, and Arkansas O'Neal has built a new warehouse,  $\frac{1}{2}$  mile off U. S. Highway 80, four miles East of Jackson. Occupying a 14-acre tract, it is the only exclusive steel distributing plant in Mississippi. Its modern facilities are manned by experienced personnel. From the large, well rounded stock, overnight service is available to most points in the three states.

## O'NEAL STEEL CO.

*Your nearest dependable source of supply*

**Birmingham 2, Ala.**  
Box 2623



**Jackson 7, Miss.**  
Box 3273  
West Jackson Station



## A LOT OF EXPERIENCE IN MATERIAL HANDLING

The fact of the matter is we're in business to help you stay in business . . . to help you make a profit. We're in business because it's people like you who take advantage of our unlimited experience in designing and building Material Handling Equipment of all kinds.

Why shop around? From one source — Jeffrey—you can obtain an abundance of sound advice as to the proper unit (or complete system) to do your particular job, whether it's conveying, elevating, feeding, drying or cooling, crushing or pulverizing, packing, transmitting power, etc.

Lots of engineering experience . . . hundreds of installations . . . dependable equipment. You can't beat a combination like that when you want mechanization without guesswork or loss of time — without losing faith. We'll be glad to help, constructively.

**FROM  
ONE  
SOURCE**

Photos (top to bottom): Spiral Conveyor, Belt Conveyor, Bucket Elevators, Electric Vibrating Feeders, Electric Vibrating Tubular Conveyor, Constant Weigh Feeder and Pan Conveyor, Pulverizers and Chain Drives.

**ALSO: Bin Valves  
Packers  
Chains**

**Apron Feeders  
Belt Trippers  
Magnetic Separators**

**Screens  
Shredders  
Skip Hoists**

**Belt Idlers  
Car Pullers  
Dryers**

**Coolers  
Crushers**

# JEFFREY

ESTABLISHED 1877

Complete Line of  
Material Handling,  
Processing and  
Mining Equipment



## "No mud on our Pulpit!"

"No . . . not in our little church!"

"But something the Pastor said reminded me of a service I'll never forget. Later, Helen told me I'd said 'Mud!' out loud. That's why she dug me in the ribs and said 'John, wake up!'"

"I guess I was wool-gathering. I was back overseas, listening to a Chaplain who'd found a spot of beauty in a grove of trees for his services . . . right smack in the middle of a war! The green branches made a church-like arch. The sun filtered through the branches like through our church windows.

"The Chaplain's pulpit? Just the hood of a homely Army Jeep . . . splattered with mud. No organ music . . . just the booming of big guns far off. No pews, either . . . just mud to sit in. But I felt just as close to God then as I did last Sunday in our Maple Street Church.

"After Helen nudged me awake, I thought of countries where mud is slung at pulpits. Where men of the cloth are jailed. Where churches are closed or burned. And where God is disowned. I gave thanks that *here* we respect *all* churches.

"Freedom of worship is one of our precious rights. Other Freedoms include our right to vote as we please . . . and without anyone knowing *whom* we vote for. To get rip-roaring mad when we see our taxes wasted by wild spending . . . and when we read about charges of corruption against public officials. To choose our own jobs, like I did when I applied for one at Republic. To own our own homes. To drive our own car across state lines with nobody to push a gate down in our faces.

"I said an extra prayer last Sunday: *May our Reverend Johnsons, Father Kellys and Rabbi Cobens always have that sacred Freedom to preach their gospel from unmuddied pulpits. Amen.*"

## REPUBLIC STEEL

Republic Building • Cleveland 1, Ohio



**Republic BECAME strong in a strong and free America. Republic can REMAIN strong only in an America that remains strong and free . . .** an America whose aircraft streak to all corners of the free world on missions of commerce, mercy and peace. *Through the Aircraft Industry, too, Republic serves America.* Republic furnaces and mills produce aircraft-quality steels . . . steels for the tools to shape the parts . . . steels for the instruments that guide the way . . . for sheltering hangars . . . for the reinforcing that makes safer runways. Republic is proud of the part it plays in supplying so much of the *ground-based* production power that keeps America powerful aloft.

\* \* \*

**[For a full color reprint of this advertisement, write Dept. J, Republic Steel, Cleveland 1, Ohio.]**



# Six men on a tank...



*Plus* { 300 other skilled craftsmen  
Modern machines and tools  
Top plant facilities

## Help You EXPAND PRODUCTION— WITH NO CAPITAL INVESTMENT!



Butler Birmingham, Alabama Metal Fabricating Plant

### Butler Birmingham, Alabama Metal Fabricating Plant

Butler has 50 years of design, engineering and fabrication experience in building a wide range of steel products. This experience is your assurance that Butler engineers can solve your special fabrication problem. Investigate today. The Butler Birmingham Plant is strategically located to serve you better. Mail coupon for all the facts.

**FREE BOOKLET**  
**Gives You All the Facts**  
**GET IT TODAY**



Illustrated booklet tells and shows you the scope of Butler productive capacity, special products manufactured, complete data. Mail coupon now.

**Butler Manufacturing Company**  
Dept. MN74, Birmingham 8, Ala.

- ☐ Please send me your free booklet describing your plant facilities.  
☐ Please contact me at once.

Name

Address

Firm

City  Zone  State



# Southern Home of Zonolite Products



Here Zonolite-brand Vermiculite, the Wonder Mineral for Lightweight Insulation in Building Construction, is mined and processed for the South, East and Central States.

- ★ ZONOLITE FILL INSULATION
- ★ ZONOLITE ACOUSTICAL PLASTIC
- ★ ZONOLITE PLASTER AGGREGATE
- ★ ZONOLITE CONCRETE AGGREGATE
- ★ ZONOLITE HIGH-TEMPERATURE INSULATING CEMENT

Here are a few recent jobs involving one or more Zonolite products for insulating concrete roofs and floors; plastering room interiors; fireproofing steel construction; acoustical treatments of ceilings; insulating concrete beneath radiant heat panels or precast Zonolite for light-weight, low-cost roof decks.

St. Bernard's Hospital, Jonesboro, Arkansas  
 Washington Park School, Laurinburg, N. C.  
 Mt. Vernon Elementary School, Atlanta, Georgia  
 Thirty-two churches in the "Ark-La-Tex" area  
 Des Moines Art Center, Des Moines, Iowa  
 18-story Cameron Apartments, Columbia, S. C.  
 Holbert School, West Memphis, Tennessee  
 Presbyterian Church, Davidson, N. C.  
 Parkview Elementary School, Jackson, Tennessee  
 Bob Jones University, Greenville, S. C.  
 Mt. Airy High School, Mt. Airy, N. C.  
 Granite Mountain Housing Project, South Little Rock, Arkansas  
 Crosstown Theater, Memphis, Tennessee  
 Clemson House, Modern Hotel, Clemson, S. C.  
 Caddo Heights Elementary School, Shreveport, Louisiana  
 Lufkin Memorial Hospital, Lufkin, Texas

Salley Grocer Building, Shreveport, Louisiana  
 Harding College, Searcy, Arkansas  
 Oldham Theater, Clarksville, Tennessee  
 Hardin County General Hospital, Jackson, Tennessee  
 Lincoln Theater, Fayetteville, Tennessee  
 Snyder Jewelry Store, Memphis, Tennessee  
 West Monroe High School, Monroe, Louisiana  
 Southern Desk Company, Hickory, N. C.  
 Central State Bank, Oklahoma City, Oklahoma  
 Service Pipeline Building, Tulsa, Oklahoma  
 Student Union & Geology Building, Norman, Oklahoma  
 WKY Radio Studio, Oklahoma City, Oklahoma  
 Three theaters in Lawrenceburg, Winchester and Martin, Tennessee  
 Northeast Mississippi Hospital, Boonville, Mississippi  
 Ten Schools and Industrial Buildings in the Houston, Texas area  
 More than 250 dry kiln roofs in the Shreveport, Louisiana area  
 Thirteen acre roof for the Ford Plant, Dearborn, Michigan  
 Saxony Hotel, Miami Beach, Florida  
 Rich's Department Store, Atlanta, Georgia  
 American Stove Company, Office Building, St. Louis, Missouri  
 The Capitol, Pentagon Building and Hotel Statler, Washington, D. C.

**Note: A valuable compound used in railroad track construction and maintenance is manufactured at this plant.**

For information and literature write to

## ZONOLITE COMPANY

Box 217, Travelers Rest, S. C.



## SOUTHERN ZONOLITE CO.

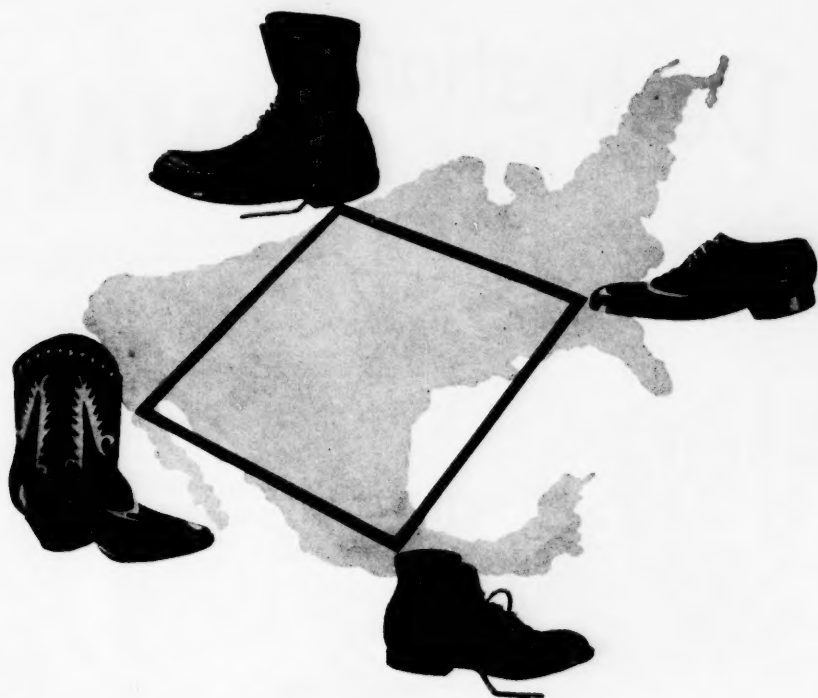
Candler Bldg., Atlanta 3, Ga.

Supplementary Processing and Distributing Plants Are Located at

ATLANTA, BIRMINGHAM, TAMPA,  
 JACKSONVILLE,  
 NORTH LITTLE ROCK, NASHVILLE



HEAT CANNOT PASS ZONOLITE  
 FIREPROOF INSULATION



## Where is your next step?

There's progress and sound growth going on all over the country today. It's healthy, competitive growth! What are the plans of your company? Do you want to widen your horizons? Reach out into new territories? Open up new plants?

Far-sighted management is turning more to the Harte System of having the entire job, from plans to finished operating plant, under a single management. It is your opportunity to have top-flight design engineers plan your new plant or existing plant expansion

*anywhere*. To have your construction handled promptly, without delays.

Whatever your engineering needs might be—new industrial buildings, complete process plants, or modernization plans—application of the Harte know-how can save you time and money.

If you want to keep a step ahead during this fast-growing industrial era let one of our representatives show you how Harte resources and experience can help you, or write for our new brochure describing the Harte System and its application.



ATLANTA • NEW YORK • HOUSTON • MEXICO CITY.

**John J. Harte Co.**

ENGINEERS • CONSTRUCTORS

# Destination: **ALABAMA!**



This is becoming an increasingly familiar scene—families embarking on a trip to Alabama—either for vacation or to live there permanently because dad has been transferred there as a technician or supervisor in one of the many new manufacturing, distribution and sales operations being established there.

The next time business or pleasure brings you to Alabama pay us a visit, especially if you, like many other industrialists, are contemplating branch manufacturing, distribution or sales operations in the South. We might be able to give you some helpful facts regarding location.

*Industrial Development Division*

## *Alabama Power Company*

*Birmingham 2, Alabama*





## "Operation Shirt-Sleeves"

**O**UT IN THE YARDS—with their sleeves rolled up. That's where you'll find our new Assistant Vice President, Yards and Terminals, and his newly-created "task force" of terminal trouble shooters.

An innovation in railroad circles, this "task force" is actually living in the yards day and night—studying every operation—seeking new ways, no matter how small, to improve our service.

In recent years, we have invested \$120 million in Diesel locomotives. In recent months, we have been modernizing existing yards and building new ones at a cost of \$17 million.

"Operation Shirt-Sleeves" is one of many reasons why these expensive new transportation "tools" on the Southern will result in better, ever-improving service for customers of the railway that "serves the South."

*Harry A. DeBatta*  
President

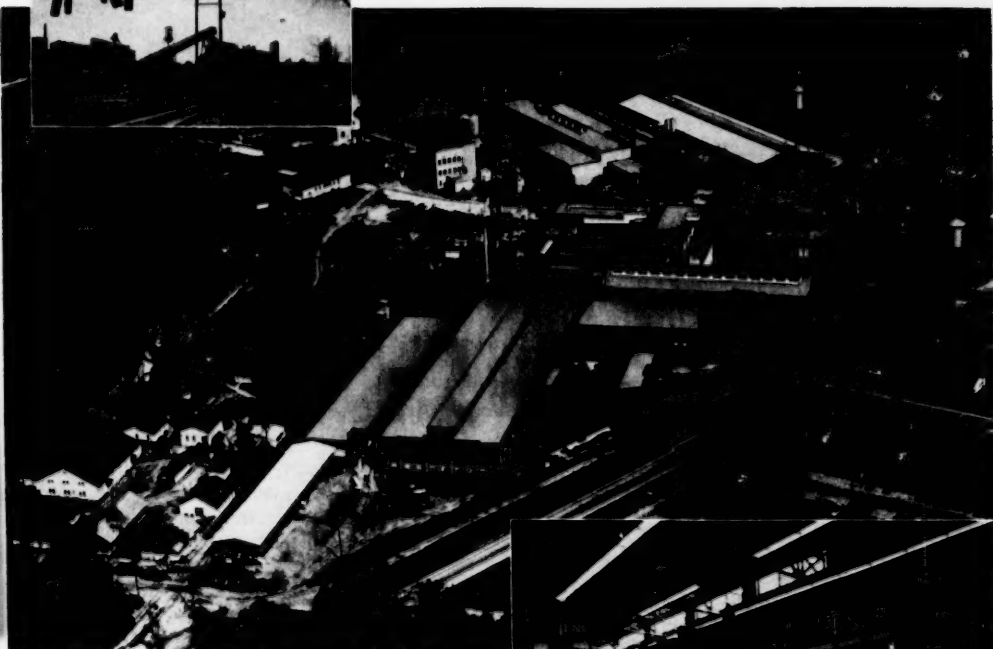
# SOUTHERN RAILWAY SYSTEM

WASHINGTON D. C.



# Sonoco Products Company

*—a name synonymous  
with progress in  
South Carolina since 1899*



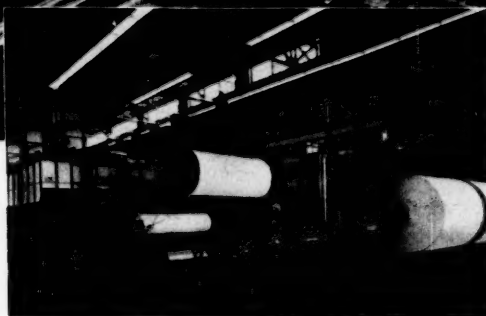
Plant at Hartsville, S. C.

*Manufacturers of:*

TEXTILE PAPER CARRIERS

TEXTILE SPECIALTIES

PAPER SPECIALTIES



## SONOCO PRODUCTS COMPANY

HARTSVILLE, SOUTH CAROLINA

MYSTIC, CONN. LOWELL, MASS. GARWOOD, N. J. PHILADELPHIA, PA. BRANTFORD, ONTARIO, GRANBY, QUEBEC, MEXICO, D. F., MEXICO





## HALF A CENTURY—AND \$2,891-MILLION

NATIONAL LIFE AND ACCIDENT INSURANCE CO., with home office in Nashville, Tennessee, at the end of 1951 completed 50 years of operations—all under the continuous management of its founders.

Total life insurance in force at the close of 1951 was \$2,891,000,000, all of it in individual level-premium policies, no group insurance being written.

On the basis of total life insurance in force, National Life ranks 17th among the more than 600 legal reserve companies in the United States. It is the 4th largest company in the United States in total number of policies in force—6,750,000.

Assets at the beginning in 1901 were \$25,000. At the close of 1951 they totalled \$388,000,000. The Company has over 7,000 full-time employees and 187 branch offices, located in 21 states.

National Life gave Nashville its first big-time radio (WSM) in 1925, and its first television (WSM-TV) which started in 1950. The "Grand Ole Opry," originated by WSM, has the longest year-round performance of any show in radio (over 25 years), and is credited with making Nashville the "music capital" of America today.

*This is another advertisement in the series published for more than 15 years by Equitable Securities Corporation featuring outstanding industrial and commercial concerns in the Southern states. Equitable will welcome opportunities to contribute to the further economic development of the South by supplying capital funds to sound enterprises.*

NASHVILLE  
DALLAS  
KNOXVILLE  
BIRMINGHAM  
NEW ORLEANS  
MEMPHIS

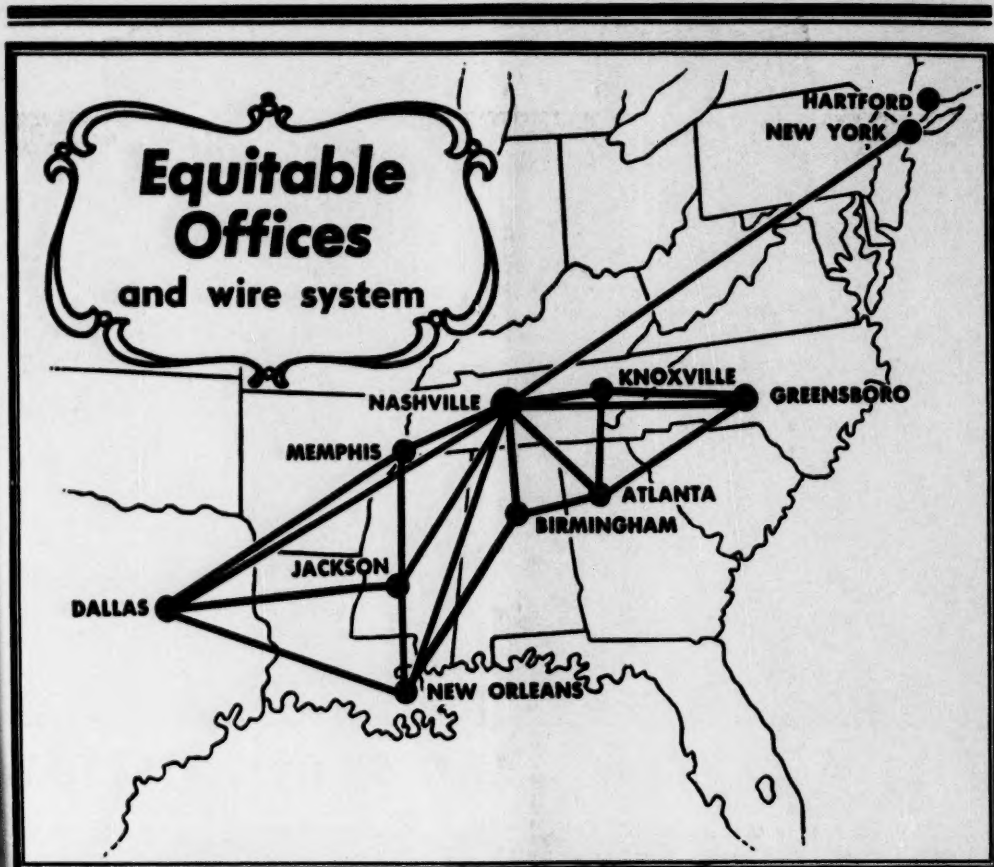
**EQUITABLE**  
Securities Corporation

NEW YORK  
HARTFORD  
ATLANTA  
GREENSBORO  
AND  
JACKSON, MISS.

RALPH OWEN, President

322 UNION STREET. NASHVILLE 3

TWO WALL STREET. NEW YORK 5



## PRIVATE WIRE SYSTEM SERVING SOUTHERN MARKETS

Equitable's 2400-mile direct wire system gives instant communication throughout the Southeast and Southwest. Immediate quotations and executions are available to all Equitable customers.

NASHVILLE  
DALLAS  
KNOXVILLE  
BIRMINGHAM  
NEW ORLEANS  
MEMPHIS

# EQUITABLE

## Securities Corporation

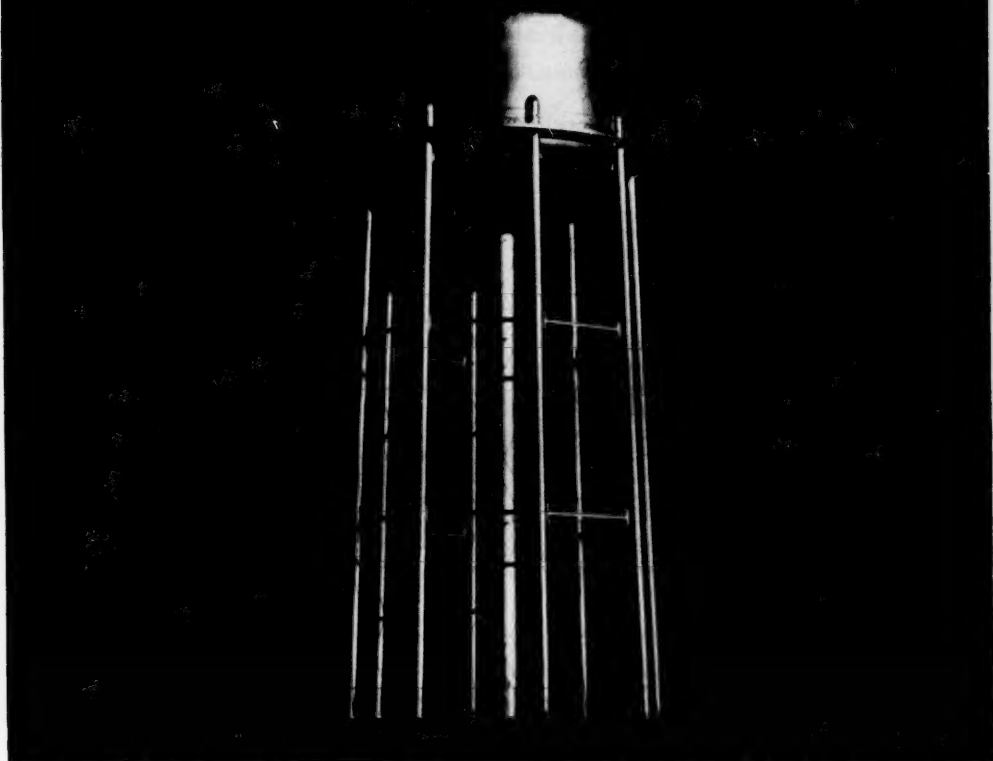
NEW YORK  
HARTFORD  
ATLANTA  
GREENSBORO  
AND  
JACKSON, MISS

RALPH OWEN, *President*

322 UNION STREET, NASHVILLE 3

TWO WALL STREET, NEW YORK 5

# Horton Elevated Tank Helps Maintain Uniform Pressure in Monahans Water System



GRAVITY water pressure provided by a Horton elevated tank is "just what the doctor ordered" when it comes to reducing pressure variations in a water distribution system. The 500,000-gallon Horton elevated tank shown above was installed to provide gravity water pressure for the residents of Monahans, Texas.

The advantages of gravity pressure go farther than just improving distribution system pressures. Pumping costs can often be lowered because the tank can be filled during the early morning hours when power rates are lower. Horton elevated tanks also provide a water reserve that guards against fire hazards. This added protection frequently results

in better insurance classifications and reduced fire insurance premiums. To learn how you can provide sufficient capacity and pressure to meet growing water demands in your city write our nearest office for full details.

*Above: 500,000-gallon Horton ellipsoidal-bottom elevated tank, 94 ft. 6 in. to bottom, in the water system at Monahans, Texas. Horton ellipsoidal-bottom elevated tanks are built in standard capacities from 15,000 to 500,000 gallons. Larger tanks with radial-cone bottoms are built in standard capacities from 500,000 to 3,000,000 gallons. Horton Waterspheres are built in standard capacities from 25,000 to 250,000 gallons.*

## CHICAGO BRIDGE & IRON COMPANY

Atlanta 3 ..... 2145 Healey Bldg.  
Birmingham 1 ..... 1530 North Fifth St.  
Boston 10 ..... 1020—201 Devonshire St.  
Chicago 4 ..... 2106 McCormick Bldg.  
Cleveland 15 ..... 2216 Guildhall Bldg.

Detroit 26 ..... 1510 Lafayette Bldg.  
Havana ..... 402 Abreu Bldg.  
Houston 2 ..... 2114 C&I Life Bldg.  
Los Angeles 17 ..... 1517 General Petroleum Bldg.  
New York 6 ..... 3313—165 Broadway Bldg.

Philadelphia 3 ..... 1619—1700 Walnut Street Bldg.  
San Francisco 4 ..... 1540—200 Bush St.  
Seattle 1 ..... 1320 Henry Bldg.  
Tulsa 3 ..... 1611 Hunt Bldg.  
Washington 6, D. C. .... 1144 Cafritz Building

PLANTS IN BIRMINGHAM, CHICAGO, SALT LAKE CITY, AND GREENVILLE, PENNSYLVANIA

# LITTLE GRAINS OF SAND

*"Little drops of water, little grains of sand,  
Make the mighty ocean, and the pleasant land."*

**Take 'Em Off.** We are convinced that, at the moment, there is no need for continuing price controls in most nondurable industries, and we refuse to accept the Administration's argument that controls should remain on the books just because they might be needed again at some later date.

Not so long ago, it could be argued by OPS that the nondurable industries, price and production-wise, were still so close in balance that prudence counseled against the suspension of any ceilings. That was before the 1951 nondurable lull became a full-fledged recession. At present, this argument of reasonable prudence no longer applies. Even if the nondurable industries experience a limited rebound this year it would take much more than that to cause prices to resume any sharp uptrend. Price control should be strictly a temporary measure.

**Tragic Illusion.** The lack of concern or understanding of fiscal affairs on the part of the top echelon in Government circles is truly alarming. Apparently the only way to avoid disaster lies in the hope that the burdened taxpayers will arouse from their lethargy and insist upon the elimination of waste and extravagance. But profligate Federal spending has not met with much public opposition because too many people believe that American resources and financial capacity are unlimited and that our wealth has been expanding at a rapid rate. This is a tragic illusion as can be shown when the figures on national wealth are corrected for price distortions. Our wealth in terms of 1929 dollars gained only 12 per cent from 1928 to 1948, according to a study made by the National Bureau of Economic Research. During this period, however, the population of the country increased by more than 21 per cent. Therefore, in terms of 1929 dollars, per capita national wealth in 1948 was more than 8 per cent below that of 1928.

**Housecleaning.** Any one man too long in office contributes to political delinquency. Elected officers should be changed frequently in order to keep them responsive

to public interests. During his first years of office, an official makes his real contribution to the country, the state or municipality. When he attempts to perpetuate himself in office by building up slush funds, and by increasing the number on the public payroll, while at the same time declaiming his indispensability and pronouncing that a state of emergency exists with which only he can cope, then it is high time to dispense with his services and retire him to private life. This applies to an alderman, a mayor, a state legislator, a member of Congress, or even to a president of the United States.

**Monetary Lesson.** In September, 1950, you could buy a Canadian dollar for 90¢ U.S.A. Today, it costs a dollar to get a dollar. In 1950 the Canadian dollar was a controlled dollar. Then it was unpegged and people could buy and sell it for whatever they thought it was worth. Its value rose almost immediately. In 1951 Canadians decided to restore the right to use foreign

exchange for any purpose whatsoever; in other words, you could get dollars out of Canada as well as into Canada. Again the Canadian dollar rose in value. As Thurman Sensing states it: "All the time these actions were being taken in Canada, they had also been so old-fashioned as to balance their budget rather than gain their ends by deficit financing. Now the surplus is pretty big and still the

Canadian dollar rises in value. Also, instead of going to Washington for Point Four aid, the Canadians decided to make investment attractive in Canada, with the provision that whatever profits were made could be taken out of Canada if the investor so desired. What heresy! This was entirely contrary to the plans of the modern monetary managers—but it is working. All these things should have wrecked the Canadian economy—but instead of that it is getting stronger."

**The Union Shop.** Too few Americans realize how the spread of compulsory unionism eats into the rights of the rank and file of labor and adds immeasurably to the already great power of the labor movement of

*(Continued on page 42)*

Much of the opposition to a return to a gold standard is from those who acknowledge that gold is the one honest standard but who either fear it because of present so-called unsettled conditions—(are conditions ever static?)—or because it will prevent currency manipulation by political or financial wizards.

★

★

*Thank you...*  
*South Carolina*  
**for making us at home  
in one short year**



Just one short year ago announcement was made of the ground breaking for the new Fiberglas plant in Anderson. What was then just a hole in the ground is now a big, bustling plant. Today, twelve months after the first bulldozer went to work, we are—with your help—approaching capacity production. We thank you for this help in turning out Fiberglas for hundreds of important military and industrial uses. It has been a pleasant year for us. We've found you wonderful neighbors—wonderful people to work with. This new plant has become, in a very real sense, *your* new plant. Again, we sincerely thank you for your warm welcome and support.

**WE'RE PROUD AND HAPPY TO BE A PART OF THE NEW SOUTH!**

**FIBERGLAS**

OWENS-CORNING FIBERGLAS CORPORATION  
ANDERSON, SOUTH CAROLINA

APRIL NINETEEN FIFTY-TWO



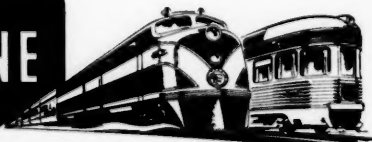
# THINKING ABOUT EXPANDING?

A SPECIAL PLANT SITE MEETING  
YOUR PARTICULAR NEEDS IS  
AWAITING YOU IN TERRITORY  
SERVED BY . . .

## The ATLANTIC COAST LINE Railroad

- ★ Good Climate
- ★ Good Labor Supply
- ★ Good Living Conditions
- ★ Cooperative Communities
- ★ Reasonable Operating Cost
- ★ Abundant Raw Materials

ATLANTIC  
COAST LINE  
RAILROAD



*"the only* DOUBLE TRACK ROUTE BETWEEN THE EAST AND FLORIDA"

FOR COMPLETE DETAILS WRITE . . .

R. P. JOBB, ASSISTANT VICE PRESIDENT  
ATLANTIC COAST LINE R. R. CO., WILMINGTON, N. C.



**VETERANS ADMINISTRATION HOSPITAL, DENVER, COLORADO.** American Bridge fabricated and erected the structural steel for main hospital building, 325' x 325', 9 stories high with penthouse; also the boiler house, the chapel, manager's building, apartment building, nurses' quarters and attendants' quarters. Total weight, 2,600 tons. General Contractor, Del E. Webb Construction Co. Plans by Veterans Administration Construction Service.



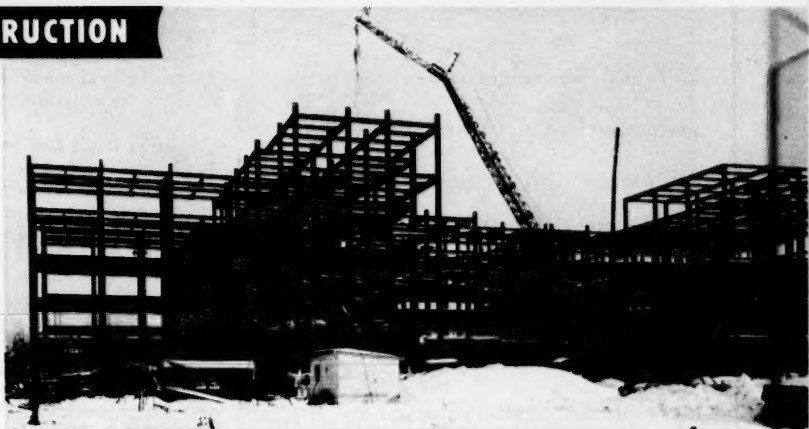
## RIVETED CONSTRUCTION



## WELDED CONSTRUCTION



**VETERANS ADMINISTRATION HOSPITAL, MINNEAPOLIS, MINNESOTA.** Fabricated and erected by American Bridge. Project included hospital building No. 43 - an 8-story structure, with setback and penthouse, and #43-1, an 11' wide x 78' long, 4-story connecting corridor, and a 61' x 117' x 13' 8" addition to laundry building. Hospital building #43 was of welded construction throughout. Total weight of steel, 2,100 tons. General Contractor, J. D. Herlin Construction Company. Plans by Veterans Administration Construction Service.



*Steelwork for  
both hospitals*  
**FABRICATED AND ERECTED BY  
AMERICAN BRIDGE  
AS SPECIFIED**

**T**HE two big hospitals shown above are typical of the many steel buildings fabricated and erected by American Bridge. Each is a good example of its particular type of construction.

American Bridge plays no favorites when it comes to riveted or welded construction. We have the skilled personnel and equipment to do both types with exacting precision, thoroughness and speed. The all-welded Minneapolis job was erected during the severe Minnesota winter and is evidence of the willingness and ability of American Bridge to field-weld structures any time, anywhere!

If you would like to know more about the advantages of American Bridge fabricated and erected steel construction, just call our nearest office.

**AMERICAN BRIDGE DIVISION, UNITED STATES STEEL COMPANY,  
GENERAL OFFICES: 325 WILLIAM PENN PLACE, PITTSBURGH, PA.**

Contracting Offices in: AMBRIDGE • ATLANTA • BALTIMORE • BIRMINGHAM • BOSTON • CHICAGO  
CINCINNATI • CLEVELAND • DALLAS • DENVER • DETROIT • DULUTH • ELMIRA • GARY • MEMPHIS  
MINNEAPOLIS • NEW YORK • PHILADELPHIA • PITTSBURGH • PORTLAND, ORE. • ROANOKE  
ST. LOUIS • SAN FRANCISCO • TRENTON UNITED STATES STEEL EXPORT COMPANY, NEW YORK



# AMERICAN BRIDGE

UNITED STATES STEEL

# GREENVILLE & NORTHERN

## RAILWAY COMPANY

**DESIRABLE SITES** available with ample supply of pure mountain water, low electric power rates and native labor. Political stability and low tax rates.

Trunk line freight and express rates maintained to and from all points in connection with all railroads serving Greenville, South Carolina.

Consideration of plant location should include investigation of advantages of the territory served by the Greenville & Northern Railway.

Descriptive brochure furnished upon request.



*Address:*

**F. G. HAMBLEN**

*Vice-President and General Manager*

**Greenville, South Carolina**

## LITTLE GRAINS OF SAND

*(Continued from page 38)*

this country. The typical union is a private organization which has always been jealous of its right to manage its own affairs as it saw fit and has resented any interference or scrutiny of its management. That is the real source of its bitter opposition to the Taft-Hartley Act, a statute which imposes the mildest of inhibitions on union action.

Once unions can depend on large-scale and universal compulsion, their freedom of action becomes almost impossible to curtail. Although they remain private agencies, they possess extensive and effective taxing power. They need not work or persuade in order to collect funds. Under these conditions, minorities are bound to be swallowed up and disappear. The political machines which run practically all unions become entrenched and can count thereafter on long and untroubled careers. It is time Congress began to consider means of guarding individual rights and liberties which are today so seriously threatened.

**Figures Don't Lie, but—**Gov. James F. Byrnes of South Carolina, in a recent address, called for a slash of \$10 billions from non-military expenditures. To make his point clear, Governor Byrnes explained that when the national budget reached \$50 billion, the people were assured that only thirty per cent of the amount would be used for non-military items. The people were also assured that there would be no increase in non-military expenditures during the present emergency. Yet, when the budget was increased to \$85 billion, the people were told again that only thirty per cent of the budget was intended for non-military expenditures. "Thirty per cent of fifty billion dollars is fifteen billion dollars," declared Governor Byrnes, "but thirty per cent of eighty-five billion dollars is twenty-five billions." The Governor's inescapable conclusion is that non-defense spending has been increased by ten billion in the shuffle, and that this amount should be slashed from non-military items immediately.

**Why Inflation.** There are two basic reasons for the inflation we are having: the abandonment of the gold standard by the Roosevelt administration and the unprecedented, unconscionable, wicked spending of the present administration. The brakes on government spending were loosened in 1913 by the income tax amendment, but the departure from the gold standard in favor of a managed currency gave the politicians free rein. No government that ever existed could be trusted to manage the currency of its country. Managed money has always been constantly worsening money. The Communists know this and always work steadily to destroy a people's confidence in its national currency. And the first move of a dictator seeking absolute power is to suspend convertibility and forbid the public to own gold.

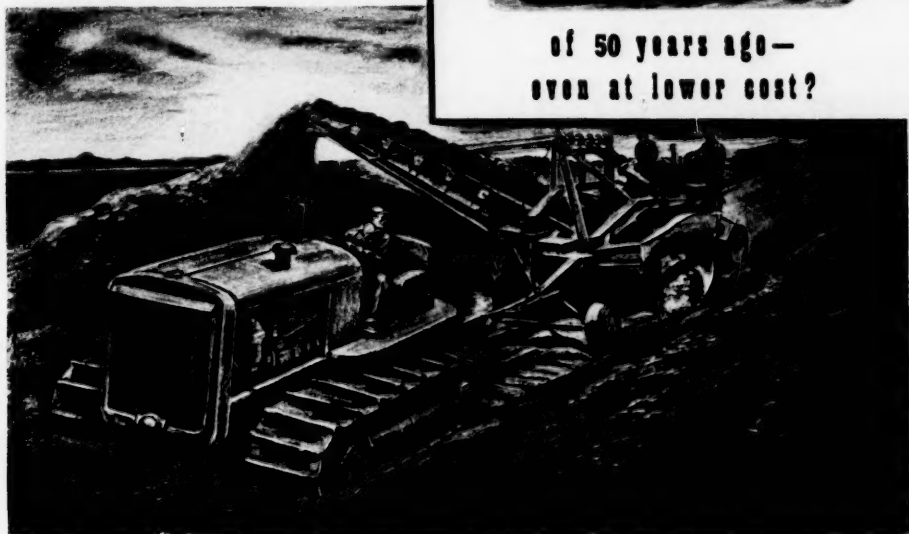
**Healthy.** February and March were marked by increasing evidence of an easing in the supply situation

*(Continued on page 46)*

Would you want the  
slow construction pace



of 50 years ago—  
even at lower cost?



## The *Engineer* helps reduce time and cost

Three mules and a half-yard scoop were a symbol of efficient construction half a century ago.

Then, horsepower was quadrupled and paced by a leather-lunged mule skinner. Now, horsepower is caterpillar-treaded with a diesel engine skinner.

Likewise the "donkey engine" and the "dinky" locomotive have been superseded and almost forgotten.

The parallel carries through every phase

of construction—provided it is well-planned.

Today, as always, good management is primarily concerned with the thoroughness of the planning, the soundness of the engineering and the alertness to time-and-cost-saving methods.

The Engineer contributes multiple and ultimate economies to the construction projects he helps plan and design for his clients.



*Engineers for 50 years ...* **J. E. SIRRINE COMPANY**

GREENVILLE • SOUTH CAROLINA

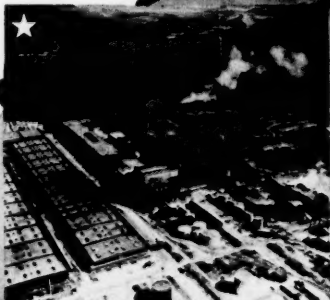
A DEPARTMENTALIZED ENGINEERING ORGANIZATION SERVING WORLD-WIDE INDUSTRY

APRIL NINETEEN FIFTY-TWO

## Value Added

Fifteen years ago the site on which this mill is built was a marsh.

Wood of the sort from which we now make pulp was a glut on the market. Factory jobs were few and far between. Now, fifteen years and many million dollars later, the mill covers 200 acres of reclaimed ground, buys \$6,000,000 worth of pulpwood per year from South Carolina farmers and producers, employs 1,100 persons, many of whom live in the thriving new community of North Charleston, pays out \$4,500,000 per year in wages, salaries and benefits, buys \$2,000,000 worth of supplies and services per year from South Carolina merchants and firms and, each day, produces around 800 tons of kraft paper and paperboard.



West Virginia Pulp and Paper Company's  
Modern Kraft Mill at  
Charleston, South Carolina

*West Virginia Pulp and Paper Company*



# CAROLINA LIFE INSURANCE COMPANY

ANNUAL STATEMENT DECEMBER 31, 1951

Total Premium Income 1951 .....	\$6,579,489.36
Income from Other Sources 1951 .....	1,390,710.92
Total Income from All Sources .....	\$7,970,200.28

## . ASSETS .

Real Estate .....	\$ 1,521,537.55
Mortgage Loans .....	9,260,396.16
Collateral Loans .....	11,500.00
Policy Loans .....	728,911.75
Premium Notes on Policies in Force .....	3,653.25
Bonds .....	6,439,722.00
Bonds—U. S. Government .....	1,966,924.00
Stocks .....	1,006,109.00
Cash on Hand in Office and in Banks .....	704,235.14
Interest and Rent Due and Accrued .....	92,324.13
Premiums in Course of Collection .....	478,582.94
	<b>\$ 22,213,895.92</b>

## . LIABILITIES .

Full Legal and Special Reserves .....	\$ 18,847,727.95
Company Retirement Fund .....	681,871.32
All Other Liabilities .....	444,669.47
Additional Protection to Policyholders:	
Investment Fluctuation Reserve .....	69,627.18
Capital Stock Paid Up .....	1,000,000.00
Surplus .....	1,170,000.00
	<b>\$ 22,213,895.92</b>
Insurance in Force December 31, 1951 .....	\$209,584,154.20
Total Paid to Policyholders in 1951 .....	\$ 1,448,781.15

**COLUMBIA, SOUTH CAROLINA**




## CONTINENTAL

**Red Tape**  
saves you up to 20%

Wherever you use tape ...  
regardless of quantity ...  
Thousands of users prove  
Continental Red Tape saves you money

PROTECTING MASKING  
SEALING LABEL & IDENTITY  
ASSEMBLY

ARE YOU USING the right tape for  
your job? ... want better results?  
Our research lab can help you - no obligation



Write for free samples & price  
list today - You, too, will like  
the way we do business.

CONTINENTAL  
**Red Tape**  
CONTINENTAL TAPES, Dept. I-A, Cayce, S.C.

## KLINE IRON & METAL CO.

1st  
name  
in  
STEEL  
in  
the  
South-  
east



Anything Metal for Any Type Building

P. O. Box 1013

Columbia, S. C.

Phone 4-0301

## LITTLE GRAINS OF SAND

(Continued from page 42)

in important materials. Four factors are prominent in this loosening-up of materials. One is the stretch-out of the defense program over a longer period than originally planned. The second is the slowing down of public demand after early 1951. The third is the expansion of productive capacity through construction of new plants. Actual output of steel ingots, for instance, is already 12 per cent larger than when the Korean War began, and more ingot capacity is being added. The fourth is a psychological factor. For months the Government was warning of shortages and the necessity of controlling the distribution of limited supplies. Among businessmen the tendency was to order as much as they could obtain, which heightened the impression of strain on supplies. Now that conditions are changing, some concerns are wondering if they will have more materials than warranted by the demand for their finished products.

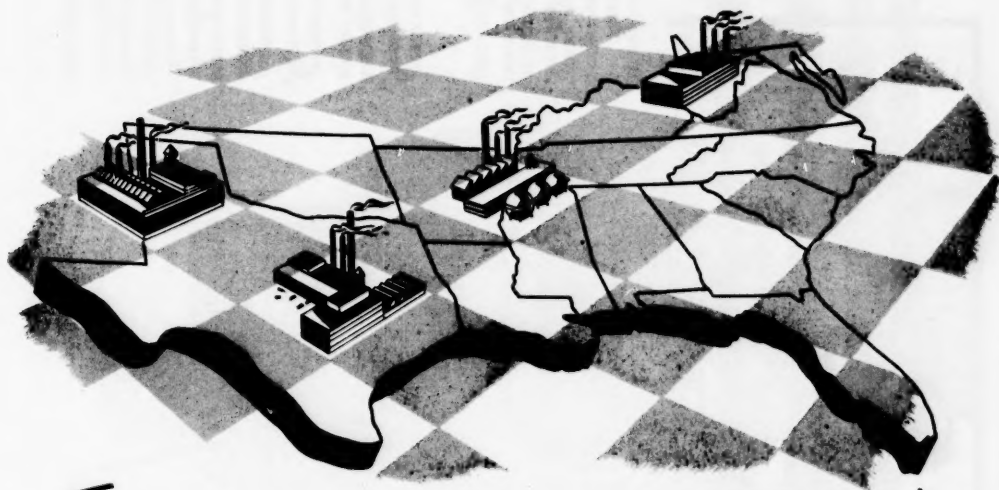
**Dangerous.** The lessons of central banking teach that the farther a central banking system is removed from political domination the better it is for the country. All measures designed to correct weaknesses in the Federal Reserve System should seek to increase, rather than to destroy, its independence of political influence. They should increase, not reduce, its commercial nature. They should assure, not impair, its liquidity. They should free it from subservience to, or dominance by, government financing rather than link it more closely to the fiscal needs of the government. The hearing of the Subcommittee on General Credit Control and Debt Management of the Joint Committee on the Economic Report (Rep. Patman, Chairman of the Subcommittee) may lead to an impairment of the desirable independence of the Federal Reserve System.

**Demoralizing.** The Federal Government has invaded so many tax fields and is taking such a large proportion of the funds available that state and local governments are hard pressed to finance their regular activities. To relieve the situation, the Federal Government provides grants-in-aid, which cover such items as highways, public welfare, schools, health, and the like. The Federal administrators dictate how the money is to be spent and specify the standards to be met. Here, then, we have a system whereby the money collected from the people of the states has strings attached. Many states are opposed to this system and would much prefer to finance their own activities according to their requirements but feel compelled to dip into the grab bag in order to get back part of the money contributed by their own citizens. The system not only is demoralizing but also it is making the state and local governments vassals of the Federal Government, thereby threatening the existence of self-government.



Why waste time site-seeing?

YOUR BEST SOUTHERN LOCATION MAY BE IN OUR FILES



*Is your next move South?*

SERVING AMERICA'S GREAT NAMES IN MANY FIELDS

Allis-Chalmers Manufacturing Co.  
Alphons Custodis Chimney Construction Co.  
American Bomberg Corporation  
Black & Decker Mfg. Co.  
Chrysler Motor Parts Corp.  
Cluett, Peabody & Co., Inc.  
The Coca-Cola Company  
Colonial Stores Incorporated  
Davenport Hosiery Mills  
The Electric Storage Battery Co.  
General Electric Co.  
B. F. Goodrich Company  
The Goodyear Tire & Rubber Company  
Marshall Field and Company  
Monsanto Chemical Company  
Owens-Illinois Glass Co.  
Pepperell Manufacturing Co.  
Pittsburgh Plate Glass Co.  
Sherwin-Williams Company  
The Springs Cotton Mills  
United Merchants and Manufacturing Co., Inc.  
United States Envelope Company  
Westinghouse Electric Corp.  
West Point Manufacturing Co.

If you are planning to come South, why send top executives jumping all over the place inspecting sites? Save their valuable time and pinpoint your efforts to find the ideal Southern location through the broad experience of Robert and Company Associates.

Our company, with 36 years' engineering experience in the South, has helped hundreds of companies in every field of industry to locate and design their plants.

With a staff of 250 architects and engineers, our firm can provide a complete service from *start to finish*, including site selection, preliminary sketches, estimates of cost, building designs and securing bids from qualified contractors.

In short, this means a time-saving, one-package project for you without sacrificing the advantages of competitive bidding.

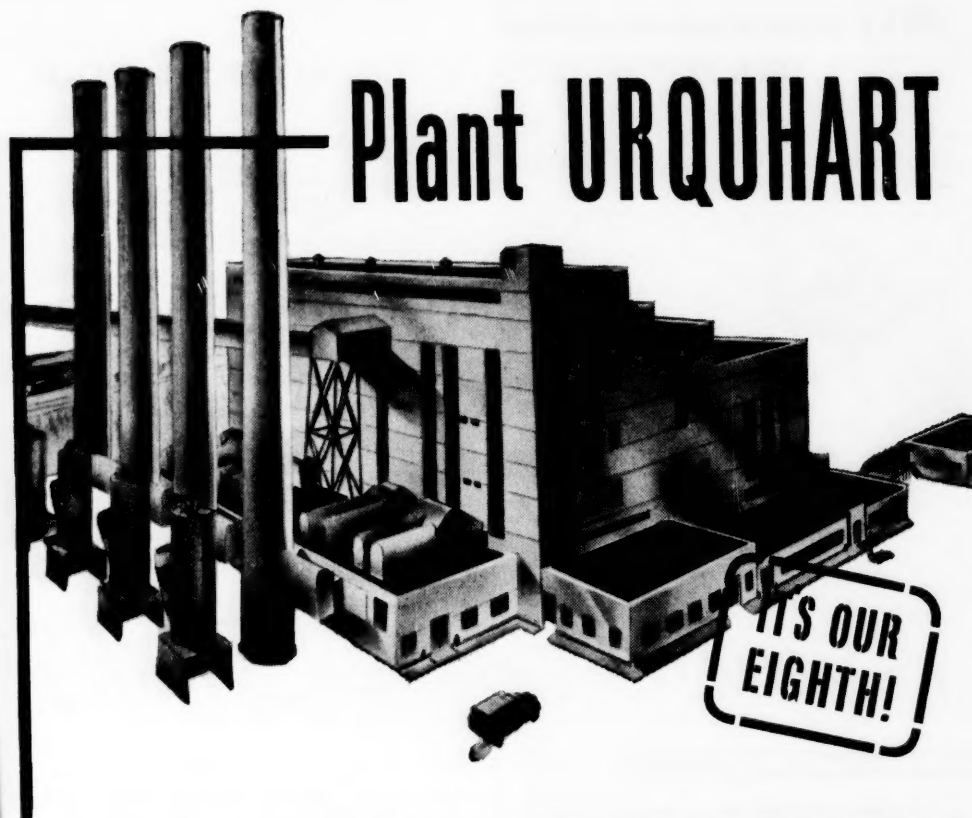
Let us discuss your program with you  
—without obligation.



ROBERT AND COMPANY ASSOCIATES

*Architects and Engineers*

ATLANTA



## Our Newest and Biggest POWER PRODUCER

Plant Urquhart, under construction on the Savannah River near Aiken, will be the eighth plant in the South Carolina Electric & Gas Company's system producing electric power to serve South Carolina's needs.

Urquhart, with an ultimate capacity of 300,000 kilowatts and a final estimated cost of \$45,000,000 will be one of the largest steam generating plants in the Southeast. Its first two giant generators will add 150,000 kilowatts to the firm, dependable power produced by our three other steam plants, supplementing the production at our four hydro-electric plants. Urquhart's first two units will raise SCE&G's total capacity to 524,730 kilowatts.

This is the power for the homes, farms, businesses and industries on which South Carolina's progress depends:

This is the power available anywhere in the 23 counties served by SCE&G's vast transmission network.

This is the power which is a standing invitation to you to locate your industrial plant in South Carolina, where your needs for firm, dependable, adequate electric energy can always be supplied.

SOUTH CAROLINA



ELECTRIC & GAS CO.

**SOUTH CAROLINA'S NO. 1 MARKET!**

**Columbia**

*Is South Carolina's Largest City*

and the home of

**THE STATE and  
THE COLUMBIA RECORD**

**SOUTH CAROLINA'S LARGEST NEWSPAPERS**

The State and The Columbia Record can sell the heart of South Carolina for you . . . with intensive coverage throughout the 16-county Retail Trading Zone of 696,406\* people . . . more than twice the size of any market covered by any other South Carolina newspaper.

The needs of these folk include the products and services you offer, and their buying habits are largely influenced by what they read in the advertising columns of The State and The Columbia Record.

Here are some of the big volume sales available to you in this rich market:

Retail Sales	\$409,052,000**
Food Sales	90,909,000**
General Merchandise Sales	52,265,000**
Automotive Sales	105,892,000**
Drug Sales	10,599,000**
Farm Income	113,085,000**
Effective Buying Income	519,830,000**

Get your share of these big volumes throughout this evergrowing market by selecting The State and The Columbia Record as your most effective salesmen.

Multiply the impact of your sales message by using a full color schedule in The State's Magazine Section, only Locally-Edited Color Magazine in the two Carolinas.

**CIRCULATION:** Morning and Evening, 98,325; Evening and Sunday, 103,770 (ABC 9-30-51)

\*1950 U. S. Census; \*\*1951 Sales Management Survey of Buying Power

**The State**  
Morning and Sunday

**The Columbia Record**  
Evening and Sunday

REPRESENTED BY THE BRONHAM COMPANY



*One of the 43 textile mills and textile manufacturing plants located in Spartanburg County.*

*Ship loading at Port of Charleston which has developed in 5 years time from 58th to 22nd place among the ports of U.S.*



## Citizens & Southern knows South Carolina



State Capitol Building in Columbia. Progressive state government is a factor in South Carolina's industrial growth.

South Carolina, rapidly growing in industrial strength presents a constantly changing picture. Citizens & Southern knows this picture well . . . and is ready to make its knowledge available to industrial clients seeking banking or trust services in this area.

THE  
**Citizens & Southern**  
NATIONAL BANK  
OF SOUTH CAROLINA

SPARTANBURG

CHARLESTON

COLUMBIA

## Searching for an Ideal Location?



**CONSIDER:**

**South Carolina is growing fast Industrially:**



### **CHARLESTON, S. C. is a booming center of the Southeast:**



growing industrially  
growing in population  
growing in wealth  
growing major port  
growing military bases  
growing water resources

### **Charleston offers industry:**



excellent sites  
economical operation  
cooperative workers  
cooperative government  
abundant power and water  
all transportation facilities  
an expanding market

### **Charleston offers geographically:**



a population and trading center  
close to Eastern, Southern and  
Midwestern markets and sources  
convenient to European and  
South American markets  
world-wide trade facilities

### **Charleston offers for pleasant living and working:**



a mild climate  
economical living  
varied sports and recreation  
all urban activities  
a vacationland  
an historic, cultural background

### **Charleston offers all the facts and cooperation you need, write:**



- The Charleston Development Board
- The Charleston Chamber of Commerce
- The Charleston Evening Post
- The News and Courier



# Charleston, S. C.

# SOUTH CAROLINA NATIONAL BANK

## CONDENSED STATEMENT OF CONDITION AS OF DECEMBER 31, 1951

### RESOURCES:

Cash and Due from Banks	\$ 59,858,479.11
U. S. Government Bonds	75,895,074.29
State and Municipal Bonds	1,180,361.10
Federal Land Bank Bonds and Fed. Int. Credit Bank Debs.	1,660,000.00
Federal Reserve Bank Stock	172,500.00
Loans and Discounts	52,260,988.95
Banking Houses (13)	1,146,405.50
Furniture and Fixtures	210,138.26
Other Real Estate	1.00
Other Assets	99,083.56
	<u>\$192,483,031.77</u>

### LIABILITIES:

Capital—Common	\$ 2,500,000.00
Surplus	3,250,000.00
Undivided Profits	1,302,529.39
Reserve—Dividend Payable January 2, 1952	187,500.00
Reserve—Under Section 23K (Int. Rev. Code)	950,000.00
Reserve—Federal Income and Excess Profits Tax	969,000.76
Reserves—Other	30,192.70
Deposits	183,293,808.92
	<u>\$192,483,031.77</u>



IT IS OUR CONSTANT AIM TO CONTRIBUTE ALL WE CAN TO THE SUCCESS OF OUR FRIENDS AND TO THE ECONOMIC DEVELOPMENT OF THE STATE WE SERVE.

WHEN ACCURATE INFORMATION CONCERNING BUSINESS, AGRICULTURE AND INDUSTRY IN SOUTH CAROLINA MEANS MONEY TO YOU, AND

WHEN AN ACTIVE ACCOUNT RELATIONSHIP IN SOUTH CAROLINA WOULD BETTER SERVE YOUR INTERESTS, YOU ARE CORDIALLY INVITED TO USE OUR STATE-WIDE FACILITIES.

## THE SOUTH CAROLINA NATIONAL BANK

CENTRAL OFFICE: COLUMBIA

Anderson  
Belton  
Charleston

Cheraw  
Columbia  
Dillon

Florence  
Fort Jackson  
Georgetown

Greenville  
Jackson  
Leesville

Naval Base  
Newberry  
Pickens

St. Matthews  
Seneca  
Sumter

MEMBER FEDERAL DEPOSIT INSURANCE CORP.



SAILINGS BETWEEN CHARLESTON

AND

PRINCIPAL  
WORLD PORTS

THE CAROLINA  
SHIPPING  
COMPANY

STEAMSHIP AGENTS

P. O. BOX 874  
TELEPHONE 36485

CHARLESTON, S. C.  
TELETYPE CS-84

*Serving the Port of  
Charleston  
for over 100 years*

**STREET  
BROTHERS**

(EST. 1838)

**STEAMSHIP AGENTS**

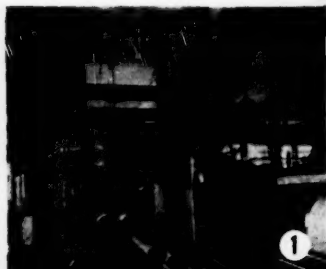
P. O. BOX 317  
CHARLESTON, S. C.

TELEPHONE 36485  
TELETYPE CS-84

# South Carolina Industries

specify

## *Continental* for **POWER TRANSMISSION and MATERIALS HANDLING**



1



2



3

Continental's engineers are skilled in "practical engineering"—the kind that results in installations designed for economical, dependable operation and long life. All Continental products—whether especially designed systems and equipment or standard equipment and accessories—show the value of practical engineering.

**Call Continental engineers in on your job  
— or specify Continental on your next  
replacement order.**

1. Continental Screw Elevator handling starch at Ninety Six, South Carolina.
2. Continental Belt Conveyor and Tripper Equipment handling guano at Charleston, South Carolina.
3. Continental Bucket Elevator installation handling coal at Greenwood, South Carolina.



INDUSTRIAL DIVISION  
**CONTINENTAL GIN COMPANY**

BIRMINGHAM, ALABAMA

ENGINEERS



ATLANTA • DALLAS • MEMPHIS • NEW YORK



MANUFACTURERS



*"What Enriches the South Enriches the Nation"*

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## Captive Workers

The Union Shop is un-American when agreed to by private groups voluntarily and enforced against individual workers. It is tyrannical when, in effect, it is ordered by a government agency. Even the late President Roosevelt, during the union shop dispute in the captive coal mines, said in 1941: "The government will never compel this five per cent to join the union by a government decree. That would be too much like the Hitler methods towards labor."

Compulsory union membership, in a society of free-men, is wrong in principle. It not only violates the individual's freedom of choice and action and fosters the growth of a monopoly as arrogant and vicious as we have ever known, but it also gives to unions the despotic power to tax—a sovereign power that, subject to constitutional safeguards, should reside only in the state.

Advocates of compulsory union membership argue that unions bargain, not only for their members, but for all employees in any given case, and that for this reason, because all benefit, all should be compelled to help pay the costs. This is the "free rider" argument, and it is dangerous nonsense. Communism is based on compulsion, Americanism is not.

The "majority rule" argument is also used by those who advocate compulsory unionism. It goes something like this: in our nation a majority makes the laws and levies taxes, and everyone is subject to such laws and must pay the taxes. Since this is true, why shouldn't workers do the same in their own organization? This argument that a union should be given power over lives and purses which has previously been given only to government, implies that such a union claims sovereign power over the workers who fall within its sphere of influence, a power unrestrained by any constitutional

safeguard for the individuals' or the minorities' protection.

Compulsory unionism is clearly un-American because it violates the freedom guaranteed by the Constitution to minorities and individuals. This is the basic reason why, in our nation, the union shop is wrong in principle. The fundamental issue is whether any man or woman should be compelled under penalty of loss of livelihood to join and support a private organization, be it union, church, or Ku Klux Klan.

Unions originally were formed to counterbalance the control of employers over jobs and livelihood. It is ironic to find unions now seeking that very control for themselves. This situation is the exact counterpart of the outlawed "yellow-dog" contract where the employer compelled the worker, as a condition of employment, not to join the union.

If compulsory union membership is decreed by the Federal Government, millions of workers would be forced into unions against their will. Only about sixteen million employees are now members of labor unions out of more than sixty-two million in the civilian work force—approximately twenty-five per cent. This failure to get more than one-fourth of the nation's work force into the unions is significant because of the millions of dollars the unions have spent on organizing work, and the supplementary support given by government officials to their organizing efforts, and it indicates beyond question that most workers, as individuals, desire to think, choose and act for themselves with respect to their employment.

Surely intelligent union members do not believe in unrestrained majority rule while three-quarters of America's workers are not union members.

# Confused Economic Picture Poses Difficult Questions for Investors

Attention to specific situations in securities rather than general market seems warranted.

By Robert S. Byfield  
Financial Editor

IF any label is applicable to the performance of the securities markets in recent months, it is "stalemate." It has been aptly stated that this has been a "market of stocks" rather than a stock market, and by this is meant that there has been no general trend as a whole, but that individual shares or groups of shares have advanced or receded. The net result has been a general cancelling out which is quite evident when one examines the Dow-Jones 65-Stock Composite Average now standing at 100.50. The 1952 high was reached on January 29th with 100.94 and the 1951 peak was 100.04 on October 15th. Since the first of the year industrial stocks have declined somewhat, the rails risen rather markedly and the utilities slightly.

The general effect of such movements has been to give the impression that investors are "waiting for something." In the January issue of *THE MANUFACTURERS RECORD* we hazarded the opinion that the ability of the Kremlin to influence stock prices this year would be potent and that Soviet moves in the political, military, economic and propaganda fields would outrank in importance the actions of other governments, including our own. No doubt investors are still waiting the results of the so-called "truce" negotiations at Panmunjom, but any sudden agreement around the conference table at that point has long since been discounted.

**Effect of Commodity Prices**—The action of commodity prices has been an important domestic influence. During the past four to six weeks we have witnessed a steady elimination or reduction of gray and black markets in many scarce commodities and raw materials, including various types of steel products, copper, lead and zinc. Lead has been decontrolled. Crude rubber is in plentiful supply. Tin has dropped. One of the inevitable effects of all of this has been a decline in the shares of companies mining nonferrous metals, and in many instances these give evidence of having been oversold. There is, after all, a vast difference between a commodity which is in plentiful supply and one which is in oversupply. The textile industry has not yet recovered from the year-old depression in which it has found itself, but here and there there are some optimistic statements beginning

to come forward from executives of companies in this field. Undoubtedly there must still elapse a period of time in which consumer inventories will be given a chance to dwindle before an improved volume of purchasing may ensue. There is on the other hand a growing evidence that many goods and commodities are to be released from controls in the not too distant future and that allocations of certain raw materials will be increased. News of this character related to the automobile industry has had a stimulating effect upon the shares of leading companies in this field and some of their suppliers. The stocks of instalment companies have been buoyant also and this has been matched by the performance of stocks of certain small loan companies, but for different reasons.

**Utilities Remain Steady**—The utilities have been better than steady. The great growth which has characterized this industry for many years is to continue almost indefinitely. Increasing labor costs constantly stimulate the search for labor-saving devices which in turn need larger and larger amounts of electric power. The cost of electricity itself, not only for residential use but for commercial and industrial purposes as well, has been held down by constant technological improvements and by the fact that rates are closely supervised by state regulatory commissions. While the utility shareholder has failed to participate in our general prosperity because his dividends have not kept pace with the cost of living, this fact is somewhat offset by certain favorable aspects. The market for electricity seems almost limitless, its cost in relation to the general price level has steadily been shrinking and state utility commissions have become considerably more liberal in their treatment of the companies under their respective jurisdictions.

**Rails Up Slightly**—So far as the railroads are concerned, there is a general anticipation of somewhat higher rates to be allowed as a result of pending applications for relief on the part of the roads. Railroad shareholders in many instances have failed to enjoy the same benefits at the hands of government authorities as have the employees of the railroads. Dividends have generally not increased anything like as much as hourly wage rates.

Here, however, the problem which the railroads face is receiving wider attention. The roads have become more astute in making known their difficulties and have gained considerably in public sympathy. In the long period of rising prices rates have tended to lag behind increased costs because of the peculiarities of the regulatory set-up under which American railroads must operate.

**Confused Trend**—All of the above gives an indication of a mixed or confused trend so far as financial news is concerned and this is exactly what the situation seems to be at the moment. In addition, however, there is some feeling that both personal and corporate tax rates have seen their high points, barring an all-out war. The concept of the Welfare State has lost some friends for various reasons and in the list is the succession of scandals and near-scandals which have come out of Washington. Lord Acton, the English philosopher, was prophetic in his oft-quoted statement that "power corrupts and absolute power corrupts absolutely." The American people are becoming well aware that corruption is a built-in part of big government. Graft, corruption and mishandling of public funds are all matters which could impress themselves on the consciousness of the average voter much more easily than the technicalities involved in such matters as the generation of electricity by public authorities rather than by privately-owned and financed corporations. The time factor here is also important. The mounting evidence of corruption comes exactly at the same time as the peak in peacetime tax rates. The synchronization of these two things could well provide the Achilles Heel of the Welfare State. Any trend away from the growing power and influence of government could not help but be beneficial to investors in the long run.

By the time this column is in print, there will undoubtedly have been many developments with respect to the unenviable position in which the steel industry finds itself. In our opinion, the cards are stacked against the owners of the steel companies and their managements. Compensation to employees under the present set-up with respect to arbitration of disputes is being based upon political considerations rather than productivity and the normal factors which determine supply and demand. This is most unhealthy and it is again a direct outgrowth of the welfare state mentality which has been creeping into the American scene for many years. The long term effect of government policy with respect to wage rates is bound to be inflationary. We would characterize the process as sort of an internal disintegration of the purchasing power of the dollar, and this could continue despite an ample supply of commodities.

In view of the confusing elements at work in the economy, investors face difficult decisions just now as to the disposition of any idle funds which they may have. It seems prudent therefore to confine attention to specific situations and companies rather than to the markets as a whole.

# Oil Scouts in the Sky

With a good deal of ingenuity the oil industry has put the helicopter to work as the "swamp buggy" of the air, and the results are promising.

INDUSTRY has found many uses for the versatile helicopter since World War II—crop dusting, ferrying mail and supplies, patrolling pipelines, and the like—but one of its most unique uses has been discovered by the oil industry. The helicopter is now taking the petroleum industry's oil scouts to spots on this nation's diverse terrain where men never before tread.

Men have been climbing hills and hacking their way through jungles for decades in search of hidden pools of oil. Using large and cumbersome swamp buggies, dugout canoes, and truckloads of equipment, they have combed the land for clues to undiscovered fields below.

It was only recently that they began taking to the air in an effort to broaden their search. Now, using a helicopter as a marsh jumper, petroleum geologists are rapidly charting promising oil lands along the swampy Gulf Coast of Louisiana and Texas in a fraction of the time it formerly took using a "swamp buggy" (the big rotating drum wheeled vehicles) or a boat.

Various patented methods are used by the oil searchers in developing their cross sections of the earth beneath their instruments. Some still use the seismic method, whereby explosions are made near the surface of the earth which send soundwaves deep underground. These shock waves, as they are called, are reflected back to the surface by the geological formations encountered. These reflected waves are picked up by instruments close to the explosion. By taking instrument recordings at several spots in a single area, the geologist can draw a complete diagram of the earth's structure for hundreds of feet down.

Other than the seismic method, there are instruments which measure variations in the earth's magnetic field and still other instruments which measure the changes in the pull of gravity. All the various methods are able to determine the likelihood of oil pools underground.

The part the helicopter plays in it all is in hopping the geologist quickly from one spot to another for his many instrument readings. If the ground is good, he can do much of this in a jeep or afoot. Where the ground is marsh grass or mud and swamp, the helicopter really proves its worth.

Because of its versatility in such work the Shell Oil Company has used it around Marsh Island, La., and other major oil companies have chartered or leased them from time to time.

One of the early users of the helicopter for this work was the Robert Ray Co., geophysical engineers of Houston, Texas. The Ray Company had contracted with a major oil company to do exploration work with its gravity meter in the marshes around Houma, La., and they had planned to use marsh buggies. But, to their dismay, the lessee of the land wouldn't permit the use of the buggies, as he was afraid they would destroy the muskrat runs and interfere with the normally happy economy of his muskrat fur business.

The company was stumped, until it discovered that helicopters were available on an hourly rental basis. The oil



After gliding gently to the marsh grasses, the oil searcher is ready to step out with his instruments and take a recording of the earth's structure below to determine the likelihood of an oil pool.

men decided to rent one, complete with pilot.

Troubles often accompany any pioneering venture, and this new twist to oil exploration was no exception. First of all, the small wheels on the helicopter caused the fuselage to set too low and would not permit good clearance in the marsh grasses. This was overcome when pontoons of sufficient size replaced the wheels. The pontoons gave an added advantage; the oil men could land on the water too.

Weather was a factor to consider. And the high cost of helicopter rental (at that time, \$125 per hour) called for careful advance preparations before actual rental. However, on the basis of work done, readings were obtained at a cheaper average than for readings accomplished with the swamp buggy.

The gravity meter being used was a metal box about one-and-a-half feet wide, high, and deep, filled with a device for recording the earth's gravitational pull and indicating the structure of the earth below. These meter readings, tied in with definite positions of longitude and latitude, enable a geologist to prepare a cross section and guess fairly accurately where oil may be found.

The instrument was light enough so that one man could carry it in his lap beside the pilot while in the air. Then, on the ground, he could hop out, set it on a tripod, take a reading and hop back in the helicopter.

While the oil searcher is hopping around in the helicopter reading instruments or setting off seismic charges, depending on the search methods used, three engineers on raised platforms three or four miles away are aiming survey instruments on the helicopter and instrument man and fixing the position of each reading on a map. The correct position is ascertained later by a triangulation of all three sightings. The angular directions from the platforms are taken when the helicopter descends vertically for a reading. Each engineer records the time of his angular observation. All watches have already been synchronized.

When the work is proceeding well, it doesn't take long for the "air buggy" to work beyond sight of the engineers atop the towers. Two men were kept busy building new towers ahead of the helicopter work. In the operation around Houma, La., Robert Ray Co. was able to construct towers close to bayous and streams, so lumber for them was carried in by boat.

Flying a helicopter is said to be more tiring than piloting an airplane. For this reason, four hours a day proved to be a good workout for the helicopter pilot hired by the oil explorers.

But during those four hours much was accomplished. The speed of the new type exploration was amazing to the oilmen. As little as five minutes between reading stations was recorded.

Oil men haven't made full use of the helicopter in their work, but the pioneering efforts already completed cause them to plan more and more for oil search by air in future operations.



# Don't Take Railroad Service For Granted

By D. V. Fraser

*A condensation of an address by Mr. Fraser, President of the Missouri-Kansas-Texas Railroad before the sixth annual convention of the Defense Transportation Association in the fall of 1951.*



D. V. Fraser

THE task that lies ahead for the transportation industry in the military and civilian phases of our nation's economy may assume even greater proportions in the near future than was experienced at the peak of World War II. In this respect our nation is indeed fortunate, for we are prepared, transportation-wise, for almost any eventuality. Our country possesses more than half of the world's transportation facilities—which include over 227,000 miles of railroads; 3,300,000 miles of public roads and highways; 27,000 miles of inland waterways; 150,000 miles of pipelines; over 6,200 civilian airports, and 40,000 miles of airways.

Without this magnificent transportation system the United States cannot hope to maintain either military or economic supremacy. In fact, it is the very foundation of our strength at home and abroad. There remains only the task of coordinating these facilities, and using them in their proper sphere, so that the most efficient and economical transportation service may be produced. It is in this respect that the National Defense Transportation Association can contribute not only to national defense, but to our national economy as well.

In my role as a railroad executive you no doubt expect to hear from me something about the preparedness of the railroads. I expect there are questions in your minds concerning the ability of the railroads to adequately perform their job in the future, and concerning what they are doing to keep abreast of any and all demands that will be made of them.

The railroads' performance during World War II earned for them the unqualified title of the nation's "basic transportation industry." Our network of rail lines is indispensable to national defense. This for the simple reason that they carry a tremendous volume of freight tonnage which cannot be moved by any other carrier—or combination of carriers. During the last War the railroads moved more than 97% of all organized military travel; 90% of all military freight traffic, and

70% of the total ton-miles of intercity freight traffic.

The flexibility and availability of our rail system cannot be over-emphasized. In event of enemy action, which would result in other channels of transportation becoming choked with *uncontrolled* traffic, trains will continue to move on their own rights-of-way under disciplined control. Because of the network of main and secondary lines, and available alternate routes, it would be difficult to completely block rail movement for any considerable length of time. This fact was proven by experiences in Great Britain during the last War.

The extent to which the railroads will be called upon for transportation in the years immediately ahead cannot be estimated. However, one thing is certain—a major portion of the monumental task of furnishing transportation in connection with the defense effort will be *their* responsibility.

In the first five years following the close of World War II, more than five billion dollars were spent by America's railroads to improve their operations and enlarge their capacity—their spending is continuing at the rate of more than a billion dollars a year, with plans progressing for an improvement budget of a billion and a quarter dollars during 1951.

Summarily speaking, the railroads are in better shape today to serve the nation in its defense efforts than at any other time in history. They have approximately 48,000 more freight cars than at the beginning of World War II; some 12,000 new units of locomotive power—mostly diesels—have been added to the motive power fleets of American railroads. New freight cars that have been placed in service since December 1941, exceeded retirements for the same period, and are infinitely better and of larger capacity. On August 1 of this year, the railroads owned approximately 1,736,000 freight cars, compared with 1,688,000 in 1941.

On August 1 more than 131,000 freight cars of various classes were on order—

enough to keep the car builders working at capacity for well over a year, provided steel is available. Orders were also outstanding for 1,602 new locomotives, all but 14 of which are diesels.

Included in these immense betterment programs are improvements to facilities such as tracks, terminals, signals and shops, freight houses, and the maze of other facilities required in railroad operations. All these improvements are designed to provide more efficient and economical rail transportation service.

Now let me make some observations about the transportation industry itself:

The tremendous size of the overall transportation industry has always made its study difficult. Nevertheless, the total public and private investment in transportation in our nation is estimated at one hundred billion dollars, or almost 20% of the nation's total capital value. The all-private investment in the railroad industry is about twenty-five billion dollars, or one-quarter of the total transportation investment.

In 1950 the volume of traffic carried by our country's transportation system exceeded the 1940 level by about 44%, and expenditures last year for transportation—passenger and freight—were forty-seven billion dollars, or one dollar out of every five of the national income.

Not long ago I saw a break-down of some railroad statistics, which impressively show what the railroads do in just one single, sixty-minute hour.

For example—in one hour more than 1,000 trains leave their starting terminals—an equal number arrive at destinations. The railroads handle—in that same hour—17,000 express shipments and 1,300,000 pounds of mail. They will receive for shipment 4,200 carloads of freight—and deliver 4,200 other carloads. Financially—and still dealing with just one brief hour—the railroads will pay out \$100,000 for federal, state and local taxes; more than \$200,000 for operating supplies, and more than \$500,000 in wages. And this goes on 24 hours a day, 365 days a year.



It is interesting, too, to reduce dry statistics to logistics for the movement of troops, supplies and materials for military purposes. Few of us realize that to move one Infantry Division requires 48 passenger trains and 20 freight trains, made up of almost 1,000 cars of all kinds.

To move one Armored Division requires about 41 passenger trains and 30 freight trains—almost 2,500 railroad passenger and freight cars.

If our nation were suddenly attacked, and were required to move, say, 3 infantry and 3 armored divisions to a given point, the railroads would have to assemble 15,000 railroad cars of all kinds, and move them in 417 trains.

Multiply this many times in event of all-out warfare, and you will readily appreciate that our nation could not possibly defend itself without a strong railroad industry.

Not long ago, your Honorary President, Major General Frank A. Hejleman, Chief, Army Transportation Corps, and now Director of Operations of all American railroads, had this to say about railroad service in national defense: "The coordination between the country's railroads and the Army Transportation Corps during the recent movement of the 2nd Armored Division personnel and cargo exemplified the ability of the railroad industry to adapt its system to new military traffic methods. This Army Division, with its supplies and equipment, was moved to the New Orleans Port of Embarkation in an unusual train-to-ship move with such efficiency that it saved the government great expense. I would like to add my appreciation for a magnificent job well done."

One of the gravest problems that faces the railroads, and which is becoming more and more acute, is how to earn enough money to supply the huge sums required annually. This money is needed for improvement and modernization of plant, to meet the spiraling wage and material costs, and enable the railroads to remain a solvent industry.

Because the railroads are in the broad sense a public utility, the kind of service they provide the public is of primary importance. At the same time the ability to operate profitably makes them a strong influence in the economic life of our nation.

The annual operating expenses of the American railroads have risen one billion dollars since the last permanent increase in freight rates was allowed by the Interstate Commerce Commission two years ago, but the increase granted last August 28 will bring in only half that amount in additional revenue.

Some people still feel that railroad freight charges have been an influencing factor in the general rise in prices, which is a mistaken viewpoint. In June, 1946, commodity prices were 45% above the 1939 level, while railroad freight rates hadn't changed one penny. By July, 1949, commodity prices had doubled the 1939 figure—railroad rates had increased less than 45%. Today prices as a whole are up 130% over those of 1939, while freight rates have increased approximately 65%.

Actually, railroad rates today represent a smaller fraction of the price we pay for most articles than at any other period in the country's history.

The problem of earnings in the railroad industry, therefore, is paramount, and is becoming more of a challenge in view of sharpened competition, and because of the narrowing margin between advancing operating costs and income. The railroads operate in a highly competitive field—and the inequitable rules of the game place them at a disadvantage.

One of the "danger signs" that causes concern to railroad management is the apathy of the public toward our industry. Railroad service is taken for granted—and because the railroads have in the past, during years of intensive production and high traffic volume brought about by conditions of war and preparedness, been able to continue as a solvent, self-supporting industry, the public seems to assume that they can continue doing so indefinitely.

It is too often overlooked, that the railroads are no different than any other industry operating under our private enterprise system, and that they must make a reasonable profit and offer comparable security to investment capital.

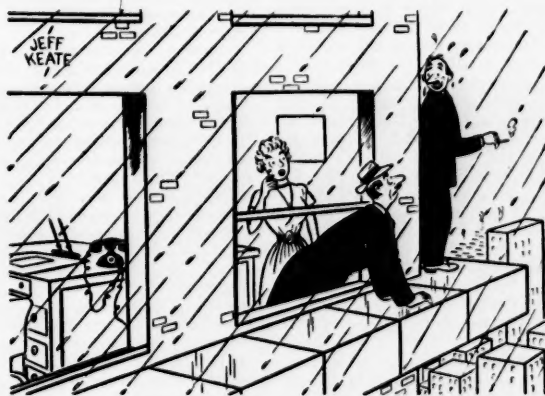
There are two solutions to the railroads' problem: one is greater earnings on the present level of traffic, the other is a greater volume of traffic, or both. Only through public education and understanding of the conditions that bring about this deplorable situation, will come the necessary government action to first, permit sufficient earnings for the railroads, and then to correct the inequitable competitive conditions. The N.D.T.A. can do much to help create the favorable climate of public opinion that our industry so sorely needs.

There is a common area of responsibility between management and the public—

military and government officials, civic leaders, business leaders and shippers—in preserving the health of our nation's railroad industry. No claims are made by the railroads that they have a vested interest in the transportation picture, but at the same time they must have equality of treatment. The entire transportation industry cannot be any healthier, or more progressive, than any integral segment of the industry. To reward one carrier, through subsidy and public support, at the expense of another, cannot be justified on the theory that it makes some contribution to national defense.

I said a moment ago that the principal task left undone today is that of coordinating our transportation facilities, and using them in their proper economic sphere. There is need for all modes of transportation. Each type of carrier is suited for certain transportation requirements, and when properly fitted into the overall transportation picture, the "jigsaw" of confusion, with its attending high cost, is eliminated.

The railroads have been built and developed for the sole purpose of handling mass transportation. There is no other form of transportation yet devised that can do the job of heavy mass hauling as efficiently and economically as the railroads. They have their quarter of a billion dollar plant, manned by a million and a quarter highly trained personnel, geared to produce volume transportation at low cost. It stands to reason that when this vast plant is utilized to the fullest extent, a contribution is made not only to national defense, but to the health of our national economy. To relegate the railroads to "stand by" service, and expect them to be available when other transportation agencies fail, would be a tragic economic waste. It would not only produce a loss for our country, but pose a threat to our private enterprise system.



**"Why, Joe Foley, you old son of a gun!  
What are you doing in my office? Why didn't my  
secretary tell me you were waiting to see me!"**

# Rubber Industry Expands in South As Markets Grow Rapidly

By Sidney Fish  
Industrial Analyst

**T**HE tire and rubber industry is steadily expanding its operations in the South. The growth in consumption of automotive and other consumer goods products is making it necessary to enlarge the scope of production and warehouse facilities in the Southern states.

**Contributing Factors**—The increase in motor vehicle registrations, the rise of mechanized farming and the rapid industrialization of the South have all contributed to the increased attention now being paid to the Southern market by the major rubber companies. Yet, prior to 1940, there was little more than a handful of textile plants operated by these companies in the Southern states.

Entirely aside from the growth of the Southern market for tires and other rubber goods, the geographical shift in sources of rubber and other materials has made it advisable for the rubber companies to set up new facilities in the South. As long as imported natural rubber was the major material used in making tires, for example, it was excusable to attempt to serve some regions of the United States from Akron. But when synthetic rubber became the principal material used in making tires and many other consumer goods products, the relocation of plants picked up momentum, because the South accounts for most of the synthetic rubber produced in the United States.

This year it is estimated that 65 per cent of the 1.2 million to 1.3 million long tons of new rubber to be consumed in the United States will be synthetic rubber produced largely in Southern plants from Southern materials.

In addition, carbon black, rayon and cotton fabrics and other materials used in making tires are produced mainly by Southern industries. Hence, shipment of such materials to northern rubber manufacturing centers, such as Akron, would involve costly cross haulage—first, in the case of the Southern materials shipped north, and second, in the case of tires and other finished products when they are shipped again to the new rich Southern markets. Those considerations have led to the building of new tire plants and the expansion of those first built in the South.

**Lower Costs**—All of the leading tire companies are operating, for the account of the United States Government, huge synthetic rubber plants that were built during World War II to meet the crisis created by Japan's conquests and have since been enlarged. The price of synthetic rubber is far below that of natural

rubber, and costs are being reduced on synthetic rubber while quality is being steadily improved. Early in March, the Government's selling price of general purpose—(GR-S) synthetic rubber, was reduced 3 cents a pound from 26 cents to 23 cents. This was a result of the expansion of low cost synthetic capacity located chiefly in the South from 760,000 tons to 860,000 tons, which permitted reduction in the required use of high cost alcohol butadiene. Much of the latter was made in other sections of the country.

As against the present price of 23 cents for synthetic rubber, the price of natural rubber stands at 48½ cents, following a cut of 2 cents a pound in the Government's price. Government controls over use of synthetic rubber have been ended. The favorable price differential points to heavy use of synthetic rubber in the future.

**Growing Markets**—The big magnet for the tire and rubber companies in the South is the rapid growth of consumer purchasing power. It is estimated that last year, in nine Southeastern states, motorists, truckers and farmers bought \$255 million of tires alone.

The fifteen Southern states in 1950 had 10.4 million passenger cars, or 25 per cent of the nation's total. Texas in addition had 2.3 million cars, and the nine Southeastern states had more motor vehicles than the combined total of four European countries—Sweden, Spain, Belgium and Austria, and had more than twice as many as were in use in the United Kingdom.

Tennessee, according to the B. F. Goodrich Company, has the largest dollar per car rubber consumption of any state. Georgia is fourth, Alabama is seventh, and North Carolina is tenth of all the states. About 1.3 million persons are now employed in highway transport industries in southeastern U. S.

The growth of the farm market is shown by the fact that in the nine-state Southeastern area, sale of farm tractor tires totaled \$7.5 million last year, and tires for other farm vehicles raised the total to \$10 million. Mechanized Southern farming thus proves a lure to tractor producers, tire makers and other industries which are putting more plant capacity into the South. Since 1932, the South's industrial labor force has increased by more than 50 per cent, and wages paid in manufacturing have risen by 275 per cent.

An important recent trend has been the creation of new warehouses throughout the South by the rubber companies.

Since 1945, B. F. Goodrich Company has established a chain of product warehouses in principal Southern markets, and on March 17, the company opened a large master warehouse in Atlanta. Later this year, the company will open another big master warehouse in Dallas. Products warehoused will include tires, tubes, batteries, automotive and home merchandising, industrial rubber products of all types, rubber footwear, and flooring. Sales offices of all Goodrich divisions are located in these distribution centers.

Similarly, Goodyear Tire and Rubber Co. has started work on what is believed to be the largest single industrial warehouse in the entire South, at Gadsden, Ala., where Goodyear has operated its largest factory outside of Akron. This warehouse, when it is finished next August, will be 400 feet wide and 1,000 feet in length.

Employing 100 persons, this warehouse will handle finished products, tires, tubes, mechanical goods and other merchandise. Goodyear has made plans for enlarging its manufacturing operations at Gadsden by 270,000 square feet, to a total of over 2 million square feet. An increase of 600 to 800 in employment will result when this projected expansion is completed. The Gadsden plant, first major tire plant in the South, was erected in 1929 and has since been substantially enlarged. Tires and tubes, soles and heels, reclaim and comeback for tire retreading are produced here. The plant currently employs about 3,000.

**Manufacturing Plants**—The Goodyear-operated synthetic rubber plant at Houston currently is the largest synthetic producer in the world. Last year it produced 100,111 long tons of rubber, which topped the output of other synthetic plants operated in Texas. The Houston plant led in the production of so-called oil-extended types of polymers, through which costs of synthetic rubber are being reduced without impairing the quality of the product. Capacity of the plant was increased 25 per cent last year. The billionth pound of synthetic rubber was produced at this plant last May.

At Gadsden, Goodyear today makes 40 per cent of the inner tubes that it produces throughout the country. Production of the plant is being stepped up 15 per cent. The textile division of Goodyear last year broke the former production record, set in 1950, by 10 per cent. At Cartersville, Ga., Goodyear is planning to build a large addition to its textile plant. The new structure will be 410 feet long and 280 feet wide, and it will require 300 additional workers. At Clearwater, Ga., is Goodyear's pioneer mill in the South, established 25 years ago, and two other textile plants are operated in this state by Goodyear.

(Continued on page 134)



The million-dollar Mitchell Street branch of the Citizens & Southern National Bank, above, was recently opened in Atlanta.

## Citizens and Southern's New Branch in Atlanta

**D**RAWING the largest crowd of any bank opening in Atlanta's history, the Citizens & Southern National Bank recently opened the doors of its new Mitchell Street Office.

Over 3,000 people waited in long lines to go on a 50-minute guided-conducted

tour of the sparkling new four-story-and-basement structure. An important feature of the tour was a display of coin counting machines, bookkeeping and proof machines, and many others—a complete "Model Bank" showing the various operations which make up C & S

Bank Service was another attraction.

Throughout the day, 800 officers and employees of the nine Citizens & Southern Banks in Atlanta took their turns helping Cecil Hester, vice president in charge of the new office, act as host.

There were souvenirs on hand for all guests. For grown-ups there were special matchbooks packed in cartons resembling miniature safe deposit boxes and for children, little "Porky Pig" banks. And for all, refreshments were served in the 10,000 square foot lobby. A drawing was held at the end of the day for Savings Accounts ranging from \$5 to \$100.

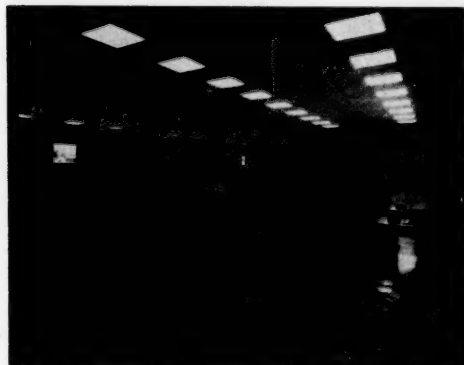
The new building itself was a major attraction. Containing over 60,000 square feet of floor space, it follows the latest trend in bank design. There are 22 teller positions—over three times as many as in the office's previous quarters. In addition, a five-level parking area will accommodate 75 cars and two drive-in banking windows will help relieve one of the most traffic-congested areas of the city.

A spectacular feature of the lobby is one of the largest murals in the South painted by Athos Menaboni, the celebrated bird painter and artist. Measuring 13½ by 36 feet, the mural, which took 506 hours to complete, depicts a typical Georgia mountain scene.

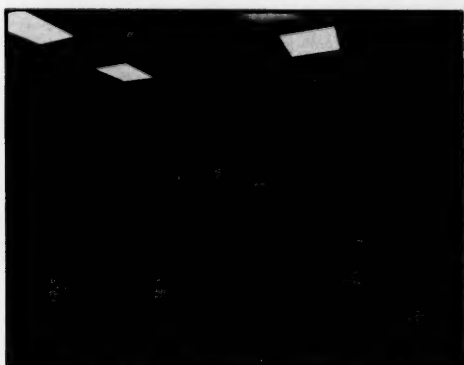
Originally, the three floors above the lobby were planned as space to be leased to businesses. In the two years between the planning board and construction, however, the bank had grown to the point where it was necessary to use these floors to house some 250 people in the operating departments for the three Citizens & Southern National Bank offices in Atlanta.

The basement is occupied by the bank's own printing department, stock room, and purchasing department which serve the 21 Citizens & Southern banks and offices throughout Georgia.

The entire building is year-round air conditioned. Music is piped to all parts of the building and to a ton-and-a-half electronic clock which is mounted above the street on the corner marquee of the building.



A view up the lobby looking toward the entrance, showing many of the twenty-two teller positions.



The Athos Menaboni mural, measuring thirteen and one-half by thirty-six feet, depicts a Georgia Mountain scene.



The B-36, above, in production at the Fort Worth division of Consolidated Vultee Aircraft Corp., is the world's largest bomber. It can carry a heavier load of bombs for a greater distance at a higher altitude than any other airplane in the world.

## Fort Worth, Tex.— Its Growth Typifies the Strength of the Southwest

**L**IKE a modern Paul Bunyan the far-reaching plans and projects of Amon G. Carter have left a deep impression on Fort Worth, Texas. Amon Carter, "Fort Worth's No. 1 Citizen," got his financial start in his home town of Bowie, Texas, by selling chicken and bread sandwiches to the two trains that came through the town daily. Located 68 miles northwest of Fort Worth, Bowie has ever since been known as "the chicken and bread town." After Carter became successful in Fort Worth he had the hotel that had served as his residence in Bowie moved to his Fort Worth ranch. His success today is partly shown in his ownership of the Fort Worth Star-Telegram, the largest daily newspaper in Texas, and radio and television stations WBAP in Fort Worth.

Another highly successful phase of Carter's career is his boosting of Fort Worth. He has never failed to give the city a plug. His efforts in making Texas the most air-minded state in the nation, his campaigning for the B-36 plant and base in Fort Worth, and his boosting of aviation in connection with selling Fort Worth to the world, brought him the 11th annual Frank M. Hawks Award, presented December 5, 1950 in New York.

Such a good job was done in 1950 of expanding established businesses and de-

veloping new ones in the city that the citizens found it necessary to get down to shovelling earth to be able to grow larger. The disastrous flood of May 1949 made it urgent to do something about flood control. An emergency appropriation of \$500,000 was secured which made it possible for the Army Engineers to complete plans and start actual construction in the summer of 1949. In cooperation with the government the city voted a bond issue of \$7,000,000 and completion of the flood control project, came in the latter part of 1951. Meanwhile the construction of Benbrook Dam, controlling the flood water of the Clear Fork, has been accomplished a month ahead of schedule and as a result large areas of land in the center of Fort Worth have been made available for business, industrial and residential use.

The year 1950 was a record breaker for Fort Worth and gave a tremendous boost to the city's position as an oil and industrial center and the livestock, grain, candy and work garment capital of the southwest. Consolidated Vultee Aircraft Corporation and Carswell Air Force Base are two payrolls that have had a lot to do with Fort Worth's recent growth and industrial development.

The Fort Worth division of Consolidated Vultee is the world's largest integrated aircraft factory. Here is where the B-36, the world's largest bomber, is turned out. It takes a \$55,000,000 mile-long plant to do it and the product has a range of 10,000 miles carrying a 10,000 pound bomb halfway; at reduced range the B-36 can carry a maximum load of 84,000 pounds.

In 1950, 7,000 persons were added to the Consolidated payroll to bring the total to more than 28,000 people. Today employment in the plant is greater than the World War II peak of 30,609 workers and represents an annual pay roll of \$100,000,000. Approximately 7,000 workers in the bomber nest live outside Tarrant County and travel as far as 95 miles to get to work.

A new \$650,000 engineering test laboratory at the aircraft plant has just been completed and put into use. Equipment in this electronic center includes an altitude chamber which simulates flights up to 60,000 feet at a temperature of 100 degrees below zero. After one of the big war birds gets the works it has undergone desert, jungle and polar conditions.

The B-36 is a tremendous thunder bird of the air. Its 10 engines develop as much horsepower as nine locomotives and its wing tanks hold enough fuel to drive an automobile around the world 16 times. The volume of the B-36 bomber is nearly 18,000 cubic feet and is about the size of three average five-room houses. The electrical system has more than 27 miles of wiring. The Air Force announced in 1950 that the top speed of the jet-augmented B-36s is "over 45,000 feet." Earlier-model B-36s are being returned to Convair (as Consolidated is commonly known) for modification so their performance will come up to the new model B-36s.



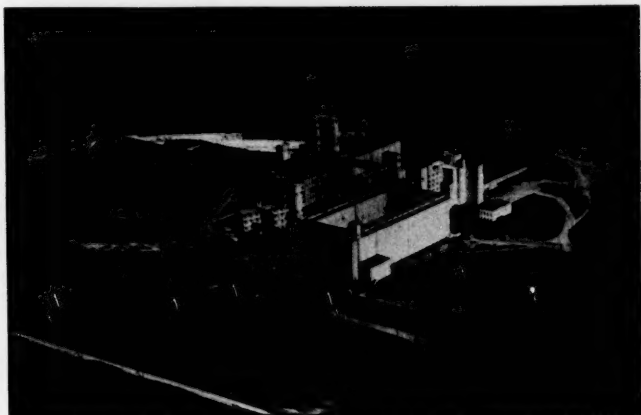
Convair's division manager, August C. Esenwein, and the U. S. Air Force have officially announced that construction is underway on an atomic-powered plane at the Fort Worth plant. A development contract for the airframe of America's first atomic-powered aircraft has been awarded and the General Electric Co. will develop the nuclear propulsion system.

**Carswell Air Force Base** is a "business" consisting of 7,000 personnel with a payroll of more than \$18,000,000. A housing program has been recently completed on the base and a 600 unit private housing project is going up adjacent to the base and authorization of 480 housing units at Carswell Air Base has been made. The first B-36D, cargo carrier counterpart of the B-36, was delivered last year to Carswell. The story of the B-36, "High Frontier," was filmed at Carswell Air Base in 1950. Thus this headquarters of the 8th Air Force plays a vital part in the city's economic setup, and is its largest defense installation.

As the home of the Southern Regional Office of the Air Material Command the city experiences a monthly outlay of \$6,000,000 made for purchases of B-36s, electronic equipment, aeronautical accessories and allied parts that make the globe-girdling machines click. Many more millions are spent each month for defense needs in the Southern District.

Further impacts to the aviation supremacy of Fort Worth were made last year in the ground breaking for the Amon Carter Air Terminal at the Greater Fort Worth International Airport. This is a \$2,000,000 job and will be one of the finest terminals in the United States. American Airlines is following up this expansion with a \$2,000,000 hangar to be built at the new airport. The airport itself is a \$12,000,000 project and is about 40 per cent complete at the present time.

**Clothing** — Another bread-and-butter factor in the economy of Fort Worth is the location of seven clothing manufacturing operations in the city representing 2,800 workers earning \$4,500,000 annually. Work clothing and uniforms are the two principal types of garments made. Williamson-Dickie, founded in Fort



With a grain storage capacity of 27,785,000 bushels, Fort Worth is one of the most important grain storage and milling centers in the South.

Worth 29 years ago, is the nation's largest manufacturer of matched work clothes and their brand name, Dickie's, is familiar to workers in the U. S., Puerto Rico, Hawaii and Guam. Total sales in 1950 were approximately \$15,000,000. More than 2,000 workers take part in the production of Dickie's; in the first year of business Williamson-Dickie had 35 employees. Three plants totalling 350,000 square feet of space make up this firm that began with 7,200 feet.

Second largest garment and uniform plant in Fort Worth is Dickson-Jenkins, makers of the Kangaroo Brand work garments and "D-J Quality Supreme" western type suits and sportswear. The Uniform Manufacturing Co. is a 23-year-old concern that turns out made-to-measure clothing for distribution in this country and abroad. Hawk and Buck Co. has been turning out Hawk Brand, Red Hawk Brand, and Buck Brand overalls, pants, shirts, coveralls and blue jeans for 50 years.

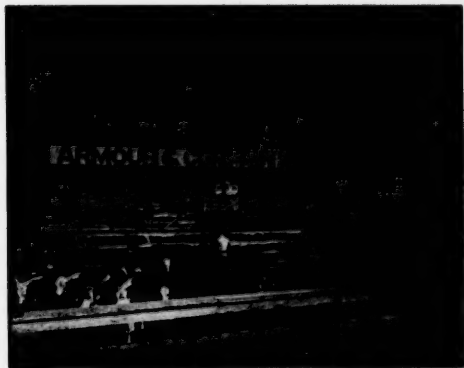
**Graphic Arts** — Another multi-million dollar business in Fort Worth is that of graphic arts. Hundreds of firms offer

publishing, printing, silk screen processing, multigraphing, commercial photography, and the many other services and products that make up this ancient profession. Fort Worth is glad to spread the good word about the Southwest and the city houses many progressive firms that keep machines and presses busy turning out the printed page and the illustrated story.

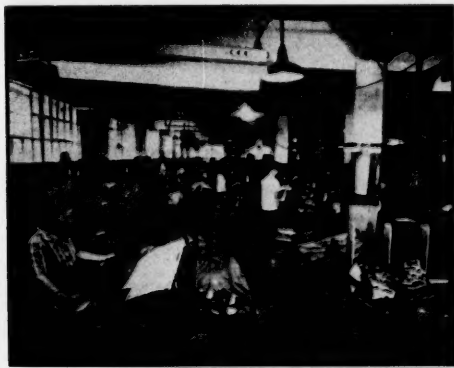
**Many Other Industries** — Fort Worth citizenry were given a feeling of real achievement in the huge International Minerals & Chemical Corporation's decision to build its first Texas plant in their city. Ground was broken for the half million dollar plant in December 1950 and the structure was completed by the end of 1951.

Maurice H. Lockwood, vice president in charge of the plant food division, states: "Fort Worth was chosen as the location for the plant because of its advantages as an agriculture and livestock center. Farmers bringing their cattle to the stockyards will find it convenient to load their trucks with plant food for the re-

(Continued on page 142)

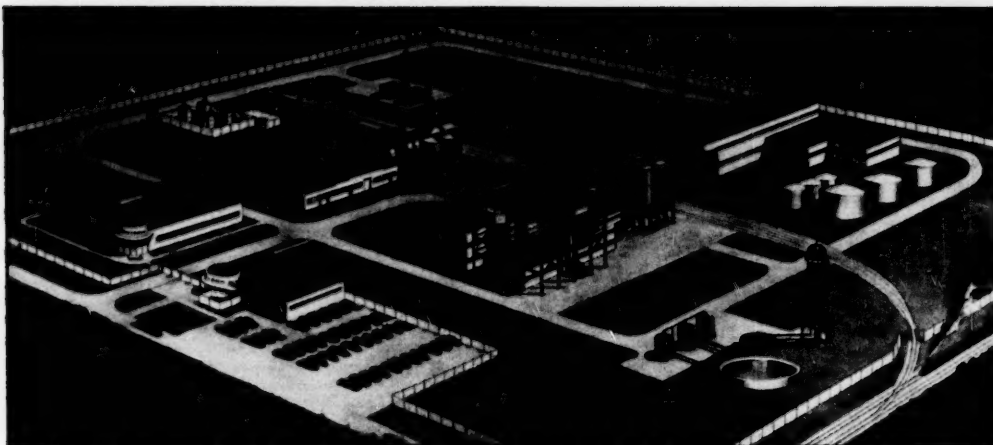


The meat packing and cattle center of the Southwest, Fort Worth's stockyards, etc., cover more than 80 acres.



Factory of Williamson-Dickie Mfg. Co. at Fort Worth, the nation's largest maker of matched work uniforms.

# CONSTRUCTION



\$7,000,000 plant being erected south of Lake Charles, Louisiana by Davison Chemical Company.

## March Awards Total \$427,299,000

By S. A. Lauver  
News Editor

**S**OUTHERN construction remained comparatively stable in March with a total value of \$427,299,000, according to a tabulation of reports in the daily construction bulletin of the MANUFACTURERS RECORD. The negative change from the figure for the preceding months approximated one per cent.

The March total ranks second for the three months elapsed so far this year. February's \$436,743,000 was slightly

larger. The \$323,061,000 for January is thirty-two per cent less than the total for the month just ended. Compared with its 1951 counterpart, the current third month represents a decline of twenty-seven per cent.

March's \$427,299,000 embraces \$169,581,000 for industrial construction, \$103,919,000 for private building, \$61,314,000 for public building, \$52,678,000 for heavy engineering type construction and \$39,807,000

for highways and bridges. Private building is the one category showing greater strength than in the preceding month.

The \$169,581,000 for industrial construction is about twelve per cent below the figure for February and approximately fifty per cent below the level for such in March of 1951, this latter being one of two banner months for industrial construction awards last year.

Private building in March, with its \$103,919,000 total was made up of \$98,391,000 for residential building; \$4,270,000 for assembly buildings, this including churches; \$739,000 for office building and \$519,000 for commercial buildings.

Value of residential work in the sixteen-state southern area rose eighty per cent, if compared with the figure for similar projects reported in the preceding month, and in fact represents the high point of the year in its field. Assembly building also increased. The March figure was ahead seventy-six per cent. Other types of private building were at a low point.

Public building's \$61,314,000 is down twenty-one per cent. The March total is also below the level of January and that for March of last year. In addition to the \$43,855,000 for government buildings, the figure includes \$17,459,000 for schools. Totals for this latter in the other two months of this year were \$23,908,000 in February, \$23,401,000 in January.

Heavy engineering construction in March, totaling \$52,678,000 is also below the figures for such work registered in the other two months of this year. The February total for this category was \$57,640,000; the January figure, \$73,139,000.

### SOUTH'S CONSTRUCTION BY TYPES

	March, 1952 Contracts Awarded	Contracts to be Awarded	Contracts Awarded First Three Months 1952	Contracts Awarded First Three Months 1951
<b>PRIVATE BUILDING</b>				
Assembly (Churches, Theatres, Auditoriums, Fraternal)	\$4,270,000	\$3,230,000	\$14,149,000	\$20,859,000
Commercial (Stores, Restaurants, Filling Stations, Garages)	519,000	1,090,000	8,669,000	20,510,000
Residential (Apartments, Hotels, Dwellings)	98,391,000	39,422,000	189,668,000	216,555,000
Office	739,000	4,130,000	10,690,000	19,638,000
	\$103,919,000	\$47,872,000	\$223,176,000	\$277,562,000
<b>INDUSTRIAL</b>	\$169,581,000	\$326,083,000	\$428,697,000	\$1,542,016,000
<b>PUBLIC BUILDING</b>				
City, County, State, Federal and Hospitals	\$43,855,000	\$36,230,000	\$170,836,000	\$117,775,000
Schools	17,459,000	208,685,000	65,768,000	99,852,000
	\$61,314,000	\$244,915,000	\$236,604,000	\$217,627,000
<b>ENGINEERING</b>				
Dams, Drainage, Earthwork, Air- ports	\$35,419,000	\$31,017,000	\$128,183,000	\$81,754,000
Federal, County, Municipal	1,445,000	3,320,000	19,368,000	11,526,000
Electric	15,816,000	35,493,000	35,906,000	41,683,000
Sewers and Waterworks	\$52,678,000	\$69,832,000	\$183,457,000	\$134,963,000
<b>ROADS, STREETS, BRIDGES</b>	\$39,807,000	\$165,513,000	\$115,169,000	\$129,325,000
<b>TOTAL</b>	\$427,299,000	\$854,217,000	\$1,187,103,000	\$2,301,493,000



Sewer and water work alone showed greater strength among the heavy engineering divisions. This, with its \$15,816,000 total, rose fifty per cent. The \$35,419,000 for dams, drainage, earthwork and airports was down eight per cent. Federal electric work dropped from \$8,758,000 in the previous month to \$1,443,000 in March.

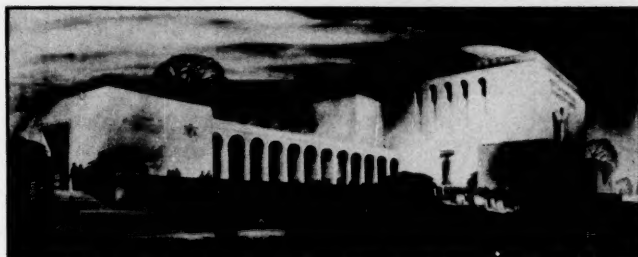
Highway and bridge construction amounted to \$39,807,000 in March. While this was apparently eight per cent below the February figure, it does not include several bid openings held late in the month for which returns were not received in time to be tabulated. A number of southern states were active during the month, several of them especially so.

The first quarter total for southern construction is \$1,187,103,000, apparently a forty-eight per cent decline, it does not include multi-million dollar projects for atomic energy commission operations which had such an inflationary effect in the first months of last year. Additional costs set for those projects in Kentucky and South Carolina would probably push the current figure up substantially, were they made public.

Elements in the current three-month total are \$428,697,000 for industrial construction; \$236,604,000 for public building, including schools; \$223,176,000 for private building, including dwellings; \$183,457,000 for heavy engineering construction, and \$115,169,000 for highways and bridges. Public building and heavy engineering work represented increases in value.

Industrial construction ranked first in value, although when compared with the \$1,532,016,000 for the first three months of last year, it represented a marked decline. Devoid of the atomic energy projects, however, last year's first quarter figure would have been more nearly in

## CONSTRUCTION



Congregation Shearith Israel to be built in Dallas, Texas.

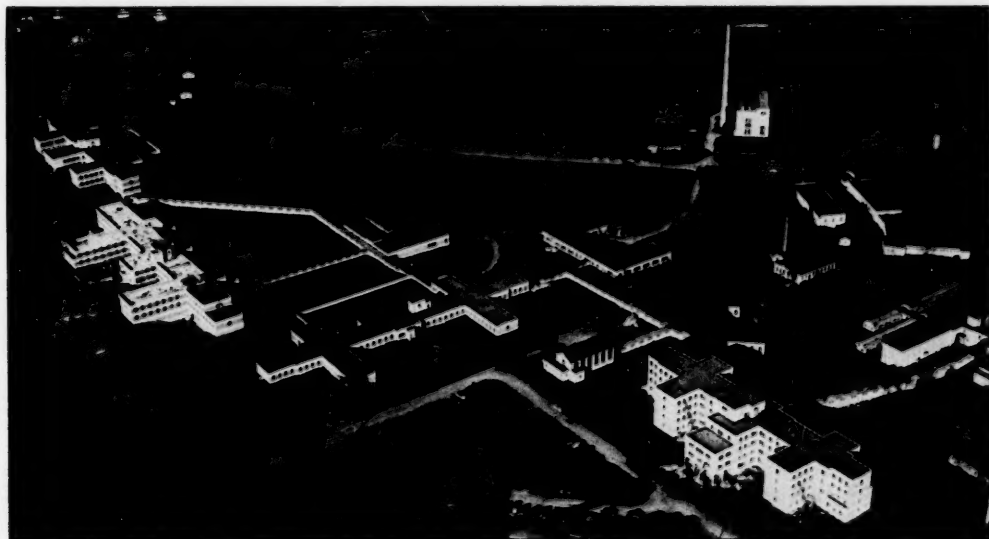
line with the total so far this year.

Second highest among the several categories this year was the \$236,604,000 for public building, which showed up approximately eight per cent greater than the

value for similar work in the first three months of last year. Government-financed building in the current three months has risen to \$170,836,000. Last year at the end of March its value was \$117,775,000.

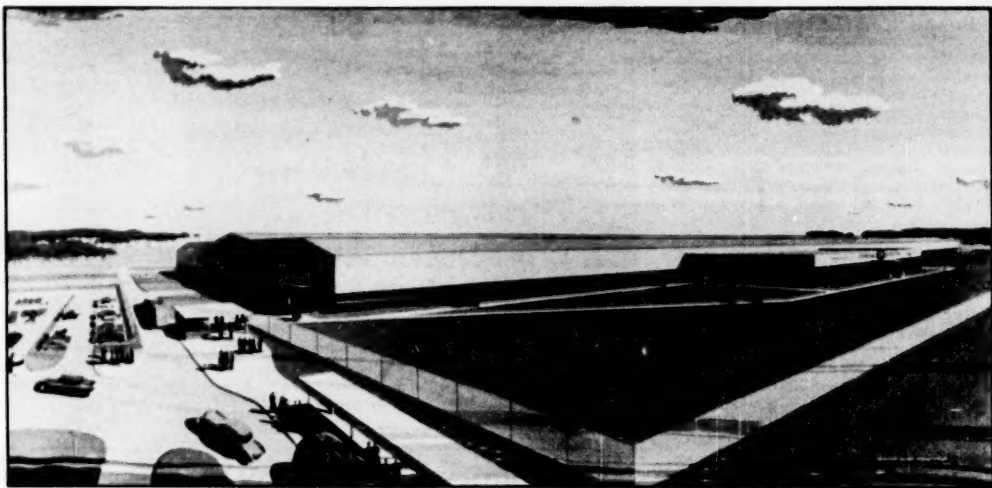
### SOUTH'S CONSTRUCTION BY STATES

	March, 1952		Contracts Awarded 1952	Contracts Awarded First Three Months 1951
	Contracts Awarded	Contracts to be Awarded		
Alabama	\$ 12,808,000	\$ 38,008,000	\$ 33,116,000	\$ 126,489,000
Arkansas	12,256,000	15,865,000	17,283,000	76,377,000
Dist. of Col.	21,666,000	59,426,000	25,609,000	13,811,000
Florida	47,408,000	13,222,000	125,134,000	103,626,000
Georgia	10,351,000	200,542,000	66,708,000	48,321,000
Kentucky	4,863,000	37,350,000	34,131,000	367,888,000
Louisiana	15,551,000	16,308,000	120,119,000	196,716,000
Maryland	37,862,000	119,465,000	125,882,000	172,600,000
Mississippi	15,709,000	28,234,000	41,970,000	63,522,000
Missouri	11,299,000	9,357,000	26,973,000	80,137,000
N. Carolina	13,411,000	10,795,000	73,357,000	54,721,000
Oklahoma	7,332,000	3,400,000	33,654,000	25,982,000
S. Carolina	11,615,000	11,792,000	30,696,000	397,904,000
Tennessee	16,991,000	53,523,000	45,926,000	35,524,000
Texas	128,275,000	128,400,000	289,370,000	417,271,000
Virginia	26,089,000	9,635,000	63,123,000	76,181,000
W. Virginia	53,905,000	98,605,000	34,655,000	26,523,000
<b>TOTAL</b>	<b>\$427,299,000</b>	<b>\$854,217,000</b>	<b>\$1,187,103,000</b>	<b>\$2,501,493,000</b>



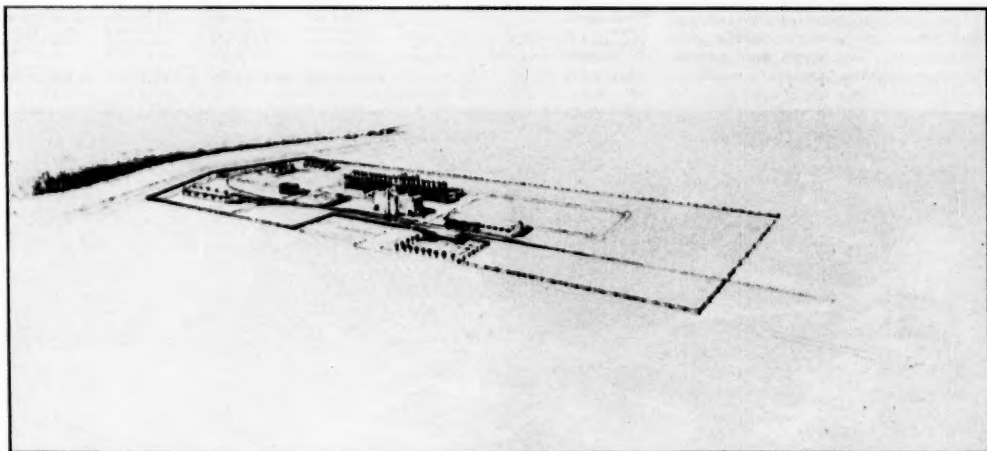
544 bed Veterans Hospital being built at Jefferson Barracks, Missouri.

# INDUSTRIAL EXPANSION



## IN ALABAMA

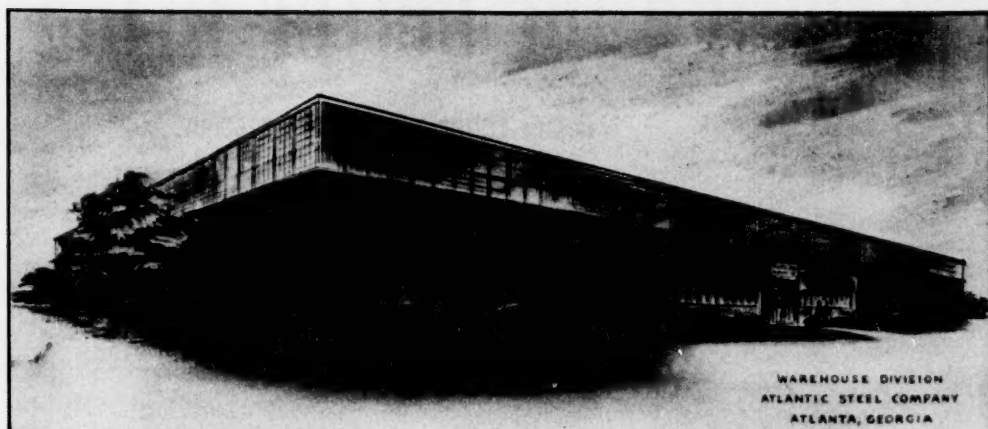
Architect's version of the General Electric Company's new Anniston Tube Works. This new \$6,000,000 plant is expected to employ about 2,000 people in the manufacture of receiving-type electronic tubes. The plant is expected to be in limited operation by June 12, the date of dedication.



## IN KENTUCKY

The Stauffer Chemical Company, with headquarters in New York, has optioned approximately 350 acres south of Louisville's Rubbertown, on which it will build the \$2,500,000 chemical plant shown in the sketch above. The plant will produce carbon tetrachloride, which is used in fire extinguishers.

# INDUSTRIAL EXPANSION



## IN GEORGIA

Atlantic Steel will construct this warehouse and office building in Atlanta. The structure will have 67,200 square feet of warehouse and facilities space and 6,700 square feet of air-conditioned office space. It is so designed that three railway cars at a time may be loaded or unloaded inside the building.



## IN NORTH CAROLINA

United States Plywood Corp. opened this new, modern sales and distribution unit at High Point, recently. Containing more than 277,000 square feet of floor space, the new concrete and brick structure is 140 feet long and 190 feet wide. Ample shipping and loading facilities are provided.

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in Foods and in Courteous Service.



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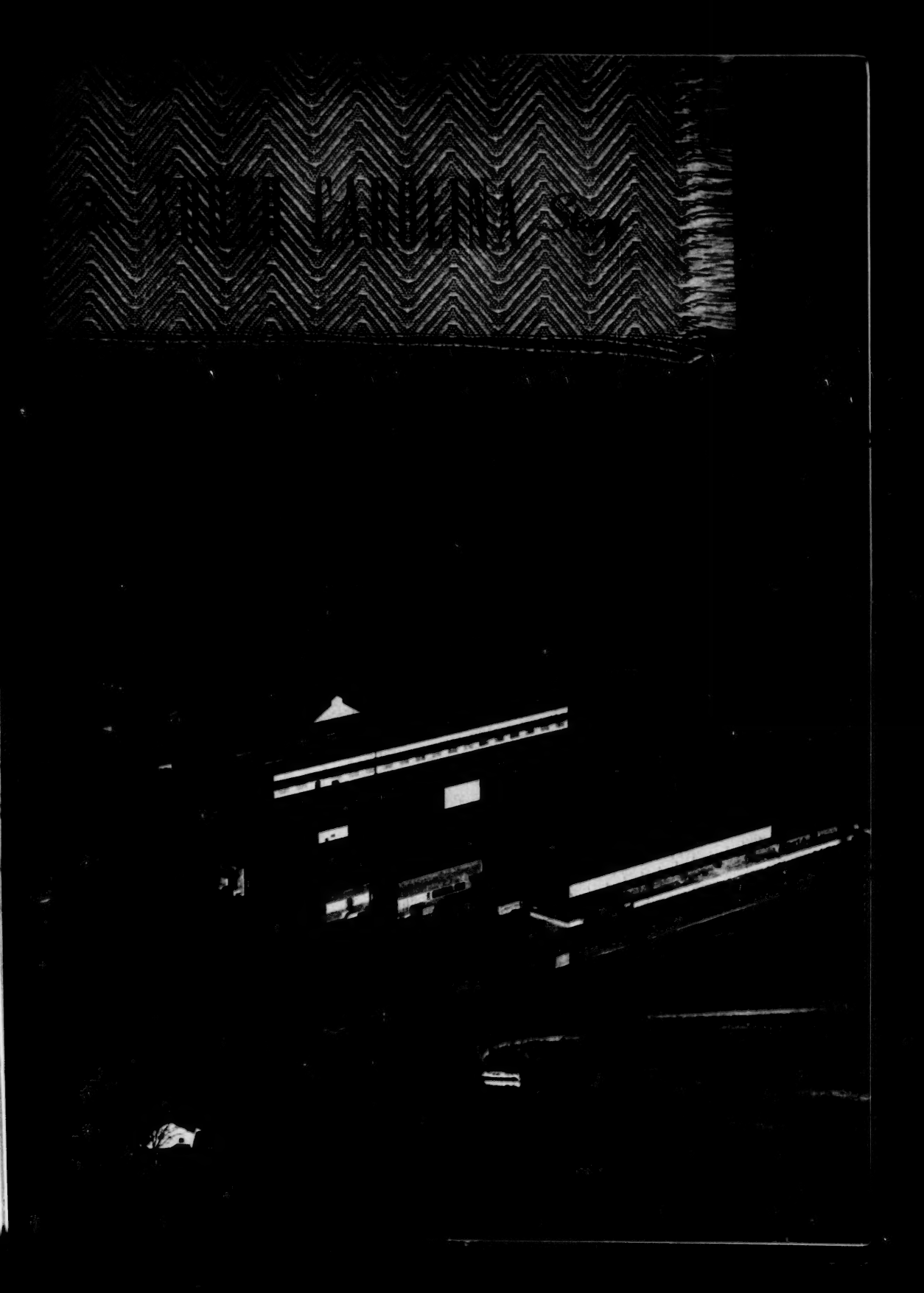


**Dixie  
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"The Dixie-Home name in the familiar design is more than just a way of displaying our name—it signifies our pledge to make your shopping more pleasant and thrifty. We at Dixie-Home know that you want **QUALITY** and **FRESH** merchandise in **VARIETY** at **THRIFTY** prices. We know, too, that you want **CLEANLINESS** and **CONVENIENCE**, in a store manned by **COURTEOUS** personnel. This is the program behind the Dixie-Home sign . . . your design for better living!"

*Dixie Thrifty*

**FRONTISPIECE**—The new Fiberglass yarn plant at Anderson, S. C.—world's largest and most modern of its kind—is situated on a 134 acre plot south of the city. Volume production in the plant will help assure Fiberglass yarn supplies during 1952. ➔



***If You Call South Carolina "Home"—***

## **You probably already know . . .**

That Liberty Life is the leading life insurance company in the State as well as one of the Southeast's most substantial financial institutions, with more than \$190,000,000 of insurance in force and \$57,000,000 of assets;

That Liberty Life's slogan, "Financial Freedom for the Family," means just that—the right kind of policy for every life insurance need;

That thousands of employees, in both large and small businesses, are protected under Liberty Life's low-cost Group insurance plans.

We say you probably know these things if you live in South Carolina, because in the Palmetto State the name of Liberty Life has long stood for prompt and complete service in all matters pertaining to life insurance.

From Maryland to the Gulf of Mexico, Liberty Life is providing protection to an increasing number of persons against the financial hazards of death, disability, and old age.

As an employer, you might be interested in hearing more about our Group insurance. Liberty Life's Group plans are low in net cost, easy to install and administer, and liberal in benefits. The benefits include life and accident, health and accident, hospitalization, surgical and medical care insurance. In other words, *complete* protection for employees and their dependents.

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**MORE THAN 850,000  
POLICYHOLDERS**

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**INSURANCE COMPANY**

**GREENVILLE, SOUTH CAROLINA**





Multi-million dollar warehouse and general offices of Dixie Home Stores, on super-highway near Greenville, which supplies chain of 168 stores, has \$5,000,000 annual payroll, and purchases of \$45,000,000 in merchandise.

## MARKETS

THE South Carolina market is highly distinctive, and in addition offers an outstanding potential that is not always found in markets of ordinary type. This latter phase will be dealt with later.

In the first place, let's take a look from the standard or routine viewpoint.

Today the South is the fastest growing region in the world. And no part of the South is growing faster than South Carolina.

Growth means expanding markets—potential for the future as well as the present.

As of the present, the State has a population of 2.2 million persons, and total income after taxes of \$2.2 billion, or per capita purchasing potential of \$1,000. This is better than a ten per cent gain since 1950.

Compared with the South as a whole, the South Carolina market holds distinctive advantages.

In the forefront of these stands the strategic location of urban centers.

These are so placed and so spaced as to serve as focal points from which profitable selling operations may be directed efficiently toward all portions of the State.

The concentration of effort, thus offered, minimizes selling costs and makes possible constant, intimate contacts with purchasing units.

Thus far, sellers from beyond the State's borders are reaping the bulk of this market harvest.

This for the reason that South Carolina's industrial growth has been built primarily around a foundation of textiles.

Textiles comprise better than two-thirds of all goods manufactured, and nearly one-third of all commodities

turned out by construction, manufacturing, utilities and services.

Manifestly, textiles produced on such a mammoth scale cannot be absorbed within the State itself, but must seek these markets in territories far and wide.

Their production, however, provides incomes within the State, totaling three-quarters of a billion dollars a year, and these, in turn, become a buying potential that cannot begin to be satisfied by local production.

Here are some examples to illustrate the point:

South Carolinians buy food at retail to the amount of \$443 million a year; the State produces manufactured foods to the amount of \$183 million. Apparel and related items amounting to \$200 million are bought at retail; only \$114 million are produced in the State.

Automobile purchases amount of \$287 million, with none produced in the State.

Capital goods, in the form of machinery and machine supplies are bought annually from without the State.

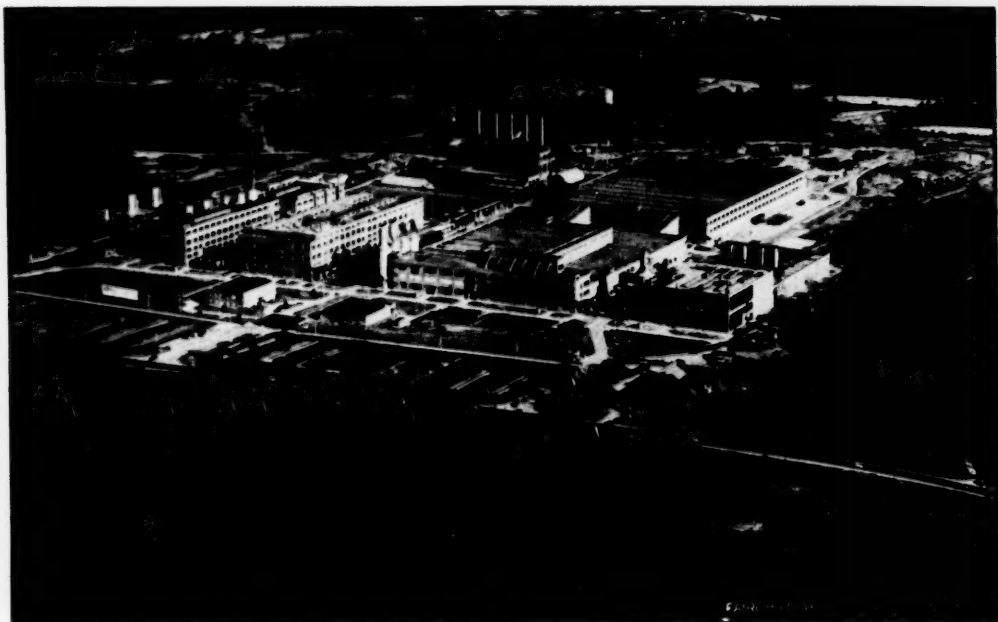
This is a lure toward which out-of-state sellers are scrambling, and a lure which grows more enticing with each passing year of the State's industrial growth.

But, as stated before, there lies within this distinctive market a potential not found in ordinary markets.

For this type of market is not only a lure to sellers. To an even greater extent, it is a lure to smart capital.

How can a dollar be better invested than in new plants turning out goods for a market that is already made?

As time goes on, there is little doubt that new industries will spring up in the State to take advantage of this lush market, for every one of the eight urban centers of the State is a lodestar of opportunity.



Celriver plant of Celanese Corp. of America at Rock Hill, S. C., showing the new staple fiber unit at the right. Other additions include extensions to the cellulose acetate block, power plant and stores. Staple fiber operations began the first quarter of 1952.

## MANUFACTURING

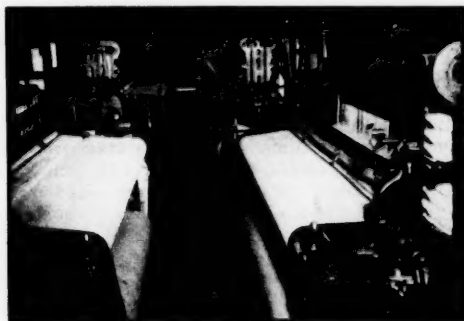
INDUSTRIAL development in South Carolina during the postwar period has been little short of phenomenal. Each year, the state has been at or very near the top among all states in the percentage of new industrial gains. From the mountains to the sea, new plants are springing up as if by magic, converting a one-time agricultural empire into a neatly balanced economy drawing income from both farming and industry.

There is, however, nothing magic about all this. South Carolina is a land highly favorable to industry from many standpoints. Some of its advantages include: an energetic, courteous people, 99.7% American born and capable of rapid adjustment to new skills; a friendly, cooperative government which seeks to help, not hinder, new industry; a sound tax structure satisfactory to industry; abundant natural resources such as forests, clays, sands, minerals; an unusually abundant water supply; unsurpassed transportation facilities, with three fine ports, over 13,000 miles of paved highways and good train, truck, bus, and air connections; ample power facilities and telephone systems; a superior program of industrial education; quick access to vast new markets, and a mild climate replete with recreational possibilities.

All these inducements, available at innumerable industrial locations, have brought South Carolina literally hundreds of new industries since World War II,

many of them of great size.

From January 1, 1945, to January 1, 1952, the State secured more than 900 new industrial plants representing a total investment of over \$465,000,000. In addition, existing plants have by no means been idle, and more than 1,000 expansions were announced during the period at a cost in excess of \$302,000,000. This means a total growth of over \$758,000,000.



Attracted to South Carolina by its ideal conditions for manufacturing processes of all types, the woolen industry is pioneered by Berkshire Woolen Co. They are producing woolen clothing at their new plant at Moncks Corner.

These figures do not include the proposed expenditure of the Federal Government on the Atomic Energy Commission plant near Aiken. No exact estimate can be made of this cost, but it is known that it will exceed \$1,250,000,000.

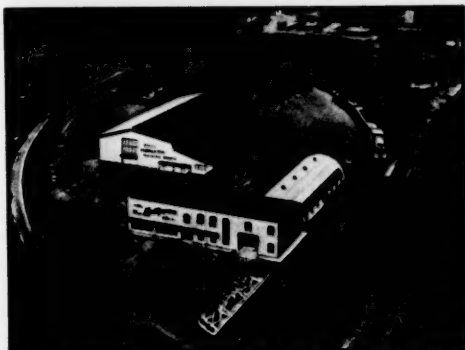
Thus South Carolina's total industrial expansion amounts to approximately two billion dollars within only seven years. That's more than \$5,000,000 a week on an average.

The important thing is, however, the number of new jobs and payrolls created. When the investments mentioned above result in full operations (some are still building) more than 80,000 new jobs will have been created, with about \$200,000,000 in new annual wages.

In addition to wages, industry must expend money for raw materials, services, utilities, taxes, and many other items which indirectly affect the livelihood of our citizens.

As indicative of what these new payrolls have contributed to the health, happiness and well being of the state, it is interesting to note that during the period 1939 to 1950 per capita income in the State increased 230% compared with 111% in the United States as a whole. During the same period bank deposits increased 310% compared with 158%, and business telephones increased 200% compared with 90% in the nation. In many other fields, including life insurance sales, private automobile registrations, etc., South Carolina far outstripped the nation in percentage increase. These facts point to a higher standard of living which is resulting, at least in large measure, from increased industrial activity.

Among the highlights of our expansion have been the establishment of the giant Celanese Corporation



Charleston, S. C. plant of the B. L. Montague Company, Inc., fabricators of industrial machinery.



Plywood-Plastics plant at Hampton, which was recently converted from woodworking to Micarta and composition moulded products.



This \$4,000,000 hospital is a gift of Mr. James Self to the people of Greenwood. It is known as the Self Memorial Hospital. The Self family owns and operates Greenwood Mills.



DuPont Company's new "Orlon" plant at Camden. This unit will produce this fiber in the form of continuous multifilament yarn. To the right of this unit the firm has started construction of another unit for the production of orlon in the form of a staple. The new plant will be twice as large as this one and will employ 1,000 people.

synthetic fiber plant at Rock Hill, costing approximately \$60,000,000, with a second plant already under construction; and the building of two giant "orlon" synthetic fiber plants at Camden by the DuPont Company at a cost of \$75,000,000.

The latter investment serves to illustrate the faith some of our industrial concerns now have in South

Carolina. DuPont is already planning a third South Carolina plant in the Florence area, having purchased the site. This company is also building and will operate the atomic fuels plant of the AEC at Aiken.

Other large developments of recent months have included:

Owens-Corning fiberglass plant, Anderson, \$12,000,000.

American Cement Company plant, Holly Hill, a 1,000,000-barrel plant, \$7,000,000.

Singer Sewing Machine Company plant, Anderson, over \$5,000,000.

Gayley Mill tricot knit and finishing plant, Marietta, \$6,000,000.

Utica Mohawk textile finishing plant, Mohawk, \$15,000,000—the largest textile mill on one floor.

Clearwater Finishing Company, Clearwater, \$10,000,000.

Grace Bleachery, Spring Mills, \$30,000,000.

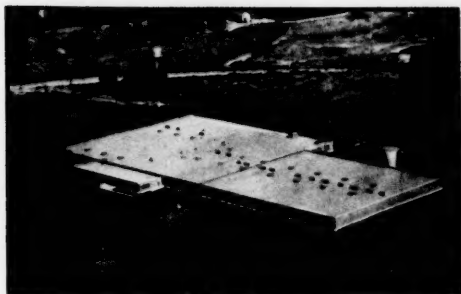
Greenwood Mills, two new plants, about \$12,000,000.

All the above figures are approximate.

To keep pace with these developments, South Carolina's utilities have made unprecedented expansions. The latest in a growing list of new power plants is the \$20,000,000 Lee steam plant of the Duke Power Company at Williamston. The South Carolina Electric and Gas Company recently started construction of a new \$45,000,000 facility. Other plants costing many millions have been built or announced by the Carolina Power



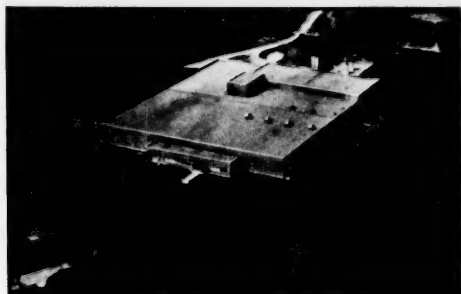
A huge precision roll grinding machine was recently installed by Raybestos-Manhattan, Inc., at its North Charleston plant. This machine is the largest in use in the rubber industry.



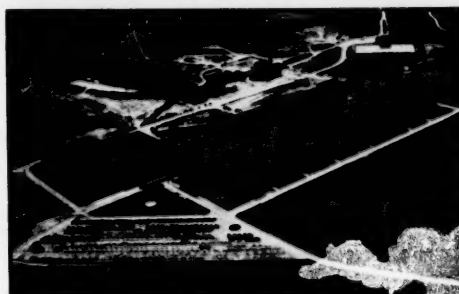
**White Horse Mill at Greenville.** Entirely closed and air-conditioned, it is one of the few of its kind in the country.



**McCormick Mill at McCormick,** a worsted spinning plant built for Deering, Millikin and Company.



**Fairview Mill at Fountain Inn,** a tricot knitting plant built for Julius Kayser and Company of New York.



**Utica and Mohawk Cotton Mill at Clemson,** a sheeting mill and finishing plant built for J. P. Stevens and Company.

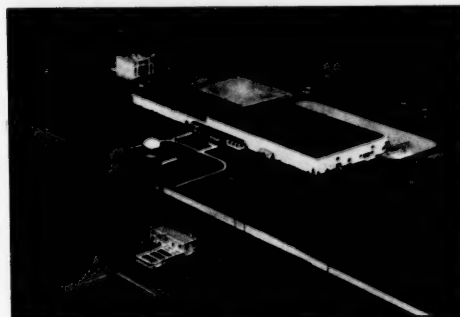
& Light Company, and the South Carolina Public Service Authority. At Clark's Hill, water has started backing up on a vast new hydro-electric public power development, and action is proceeding toward eventual building of the Hartwell Dam.

Needless to say, numerous smaller industries have sprung up employing 50 to 150 people in small towns which before had no industrial payrolls.

An unusually fine labor reserve is one of the biggest reasons for South Carolina's giant industrial growth. Mechanization and better practices on our farms have developed a continuing surplus which yields approximately 214 persons for every 100 farm jobs available. The extra 114 people, industrious, used to hard work, and loyal to their employers, can easily find work in new industry.

This great labor pool, we believe, will not be appreciably tapped by the big atomic fuels plant at Aiken. Although this plant will require up to 45,000 persons in peak construction activity, its permanent force will be only about 5,000 persons, most of them scientists or technicians.

The South Carolina Research, Planning and Development Board was created primarily to assist new industries in finding locations in the state, and to assist existing industries in planning expansions. We maintain a staff of technical men, who give active personal service to the needs of industrial executives, and prepare data brochures from the latest available material.



**Delta Finishing Company plant of J. P. Stevens and Company,** is totally enclosed and air-conditioned. (Daniel Construction Co., general contractors for all five of these mills.)

This Board, which maintains offices at 235 Wade Hampton Office Building, Columbia, is composed of A. Stanley Llewellyn, Camden, Chairman; Roger C. Peace, Greenville; R. Frank Brownlee, Anderson; G. L. Buist Rivers, Charleston; and John P. Cooper, Mullins.

Fortunately, the Board has whole-hearted backing from our nationally famous Governor, James F. Byrnes.

Says Governor Byrnes: "Whatever may motivate them, new manufacturers are welcome in South Caro-





The Lock Joint Pipe Company of Orange, New Jersey has now completed erection of this new plant at Columbia. Prestressed concrete pressure pipe is being manufactured here. The plant is located in a new industrial section being developed about five miles from the center of the city.

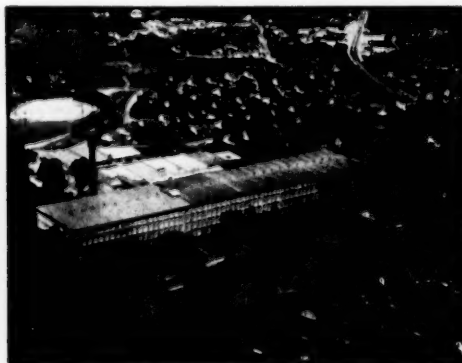
lina. They can be assured that, as long as I am Governor, I will do everything in my power to see that they receive fair treatment at the hands of our state government."

## WATER RESOURCES

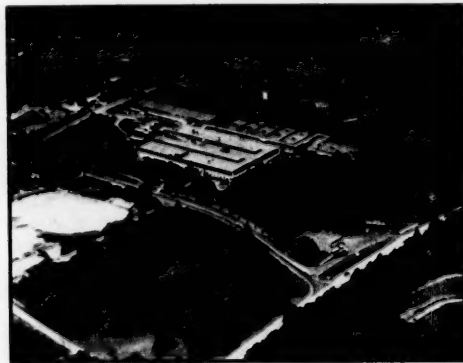
It is a well known fact that more often than not the availability of large quantities of good water is the decisive factor in the location of an industry. South

Carolina is a state that has always had a good water picture, and very recent developments, that will be discussed below, place the state in a tremendously advantageous position in this regard.

Before getting into that, however, a quick look at the overall water resources of the state is in order. There is an abundance of soft waters from the streams in all parts of the state. The underground water supply, available through the medium of artesian wells which underlie the Coastal Plain is, to a great extent, in reserve for future use. Many small towns draw on these wells for their supply, and this great reservoir



Renfrew Bleachery at Travelers Rest, above, and Brandon Mill at Greenville, right, are two of a group of eleven



Abney Mills that were pioneers in the development of the textile industry in the Southeastern states.





Greenwood Plant and village.



Matthews Mill.



Harris Mill.



Ninety-Six Plant.

Group of four plants operated by Greenwood Mills. Houses for employees are of most modern brick construction, beautifully landscaped and rented at a fraction of normal rates.

that lies below the surface is there to be tapped when needed or as convenience dictates. Sixty of the larger cities and towns of the state receive their water supply from surface streams; 106 of the smaller communities draw from their ground water supply through the use of artesian wells and only three of them need to use softening agents.

As mentioned above, recent developments concerning South Carolina's water resources place the state in an extremely enviable position from an industrial viewpoint. Due to the Back River project, now underway, the area around Charleston, and including the city itself, will become one of the potentially great industrial sites in the nation because it will have at its disposal, within a couple of years, an almost unlimited supply of fresh water. It will have up to 10 billion gallons per day right at tidewater, and to give you an idea of just how much water this is and what a tremendous asset it will be, it is necessary only to remind you that the city of New York uses just one billion gallons a day.

The cost of the Back River project will run close to six and one-half million dollars, a ridiculously low cost when it is compared with the Incodel project on the Delaware River which will add only two-billion gallons of water a day to the supply of New Jersey, New York and Pennsylvania at a cost of \$800 million.

Briefly, the project at Charleston entails the linking of three rivers; the Cooper, the Back and the Santee. The Santee and the Cooper are already linked by a canal and another canal will be dug to link the Cooper with the Back. The Back River will be dammed at another point where it already meets the Cooper, further downstream, to prevent the intrusion of salt water, and will in effect be turned into a massive reservoir to service two huge industrial areas that will be built up around the River.

The overall project is divided into three stages. The first stage, will cost about \$4½ million, and will provide a dependable work supply of 2,500,000,000 gallons a day. Estimated time of construction on this first stage



At Greenville Steel and Foundry plant which specializes in equipment for cotton mill industry, this machine is manufactured for use in continuous bleaching process. Company makes other textile equipment and fabricates steel for world-wide shipment.

is ten months, which would mean that before the end of 1952 this part of the project will be completed. It will involve the building of a dam, a canal, the dredging out of Back River, its tributary, Foster's Creek, and the swampy land along them to form a 1,000 acre reservoir with 4,000,000,000 capacity at low water (the level will rise and fall with the tide).

The area to be developed initially for industrial purposes, known as Bushy Park, totals approximately 2,000 acres, but across the Cooper River there is another

site of 9 square miles that will be developed at a later date. Getting the water to that area is the second stage of the project, and this will cost \$2 million.

The third stage of the project on which no date or cost has yet been determined, is to bring water from the Back River reservoir into the city water system. It will be a fairly simple job because the west end of Foster's Creek is only a little over two miles from the city's Goose Creek reservoir.

Already, before the project is completed, new industries are starting to come to the area to take advantage of this very attractive water supply situation. One of the first was United Piece Dye Works of Lodi, New Jersey. This firm's new textile dyeing and finishing plant at Charleston was scheduled to start operations late last year, but was not able to get under way until early this year due to the steel shortage. West Virginia Pulp & Paper, which has had a kraft mill in Charleston since 1937, has plans for a new plant in the area also. It would require as much as 50,000,000 gallons of fresh water a day—more than the city's present water system could supply to any new industry. The Charleston Development Board has several other highly interested prospects, all of whom are attracted by the potential water supply.

The city's development Board is an outgrowth of a post-war planning committee that the chamber of commerce set up in 1949. A year later it became the independent organization now operating. The board chose Arthur Field as its chief engineer. Field was obtained from Memphis, where he had been head of industrial development for the chamber of commerce.



Laurens Glass Works at Laurens, where glass bottles are made for large percentage of bottling plants throughout the South.



New State Farmers Market at Columbia.

## AGRICULTURE

"**C**LOSELY related to the production of farm crops is the processing of these raw materials into such products as may be used by the consuming public," declared Agriculture Commissioner J. Roy Jones in talking about the broad influence of agriculture in South Carolina.

South Carolina is a great producing state, however, the processors of raw products play an ever increasing part in the prosperity of South Carolina — the annual value of their products and the salaries and wages paid by them have a very substantial effect on the economic life of the state.

South Carolina is among the top textile-manufacturing states of the nation and a South Carolina Department of Labor Report shows that her 299 plants processed 2,246,508 bales of cotton during the 1950-51 season—more than two and a half times the 860,000 bales of cotton produced in South Carolina in 1951. Naturally, cotton is shipped from other states into South Carolina for processing.

This cotton crop brought the farmers about 158 million dollars and the cottonseed about 24 million, according to a late estimate from the South Carolina Crop Reporting Service. But the farmers were not the only ones

to benefit from the processing as is shown by the fact that the annual products of the textile mills was considerably over one and a half billion dollars. Some of these mills process wool and synthetic fibers but cotton lint is by far the dominant fiber used.

These same textile plants paid out about three hundred and fifty million dollars in wages in 1951 and this does not include salaries of executives. More than 183,000 persons were employed by the textile mills of the state during the same period. The capital invested in South Carolina textile plants is estimated at \$867,285,102.

Among the kinds of goods manufactured from South Carolina cotton by South Carolina factories are print cloth, bandage cloths, tobacco cloths, bed ticking and sheeting, surgical dressing materials, three leaf twill, yarns, twine, rope, drills, shirting, poplin, balloon cloth, suiting, boat cloth, gauze, cotton and rayon mixed print, bed spreads, duck, absorbent cotton, sanitary napkins, broadcloth, osnaburgs, piques, bag goods, jeans, industry fabrics, drapery and damask, towels, tubings, rugs, women's dress materials, seersucker, gingham, rayon blends, marquisette, mosquito netting, specialty elastic yarns, sateens, tapers and light webbing, outing flannels, gray sheeting, raincoat cloth,



Champion South Carolina Cotton Grower.  
(Maurice Smith—See Story)

terry cloth, cheese cloth, diapers, upholstery fabrics, pocketings and cotton blankets.

South Carolina cotton farmers accomplished the remarkable feat this year of producing an average yield of 394 pounds of lint cotton per acre. One farmer, J. Maurice Smith of Edgefield, produced 8,380 pounds of lint cotton on five acres in a statewide cotton contest sponsored by the Extension Service.

It is recorded in the 1907 Year Book of the South Carolina Department of Agriculture from a story in the Yorkville *Inquirer* during the month of November, 1897, that E. D. Thompson of Point, York County, produced 1,722 pounds of lint cotton on one acre which is slightly more than the 1,676 pounds produced per acre by Mr. Smith.

Good cotton weather, increased "know how" of the cotton growers, concerted efforts on insect control, proper fertilization and the availability of improved varieties of South Carolina bred and produced seed, all played their part in the production of this good cotton crop.

Before the raw cotton reaches the textile plants or even before it enters the market at all, it must be ginned and packed in bales and this processing is done by the 500 cotton gins which dot the entire state. Ginning may be explained to the uninitiated as a process of separating the cottonseed and trash from the locks of cotton that have been picked from the bolls in the field.

Ginning is a seasonal operation and some of these plants are what is known as plantation gins. These are usually operated by farm labor during the harvest season. Some of the gins are operated in connection with other plants such as cottonseed oil mills and feed mills. No figures are at hand that will indicate exactly how much labor is employed in the ginning of the cotton crop but it is safe to say that thousands do find seasonal employment there.

Cotton lint is not the only product of the cotton plant that is being processed by South Carolina factories because cottonseed produced by South Carolina farmers in 1951 amounted to 350,000 tons with a farm value of \$24,000,000.

Twenty-five oil mills operated in the fiscal year 1950-51 and produced from cottonseed and some soy beans an annual product value of slightly over sixteen million dollars. These oil mills have a capital investment of \$4,249,960, gave employment to about 800 people and paid them in wages something over a million dollars not including salaries of superintendents and other salaried workers. They used only a fraction of the cottonseed produced and much of the seed will be used for planting purposes in this and other states. South Carolina exports much good planting seed and plant breeders in this state have established an enviable reputation on their improved varieties.

The cottonseed processing industry is an interesting and comparatively recent development because in the earlier days of commercial cotton production seed were considered as waste products and were often dumped into gullies and streams. It was learned that these seed were valuable not only for the oil they contained but because of the cake, meals, hulls and linters. Cottonseed oil is used largely in making edible products such as shortening, margarine and salad oil, and also in paint and waterproofing. Cottonseed meal is an excellent protein feed which is prized by livestock growers in this and foreign countries. It is also an excellent source of nitrogen in fertilizer mixtures, but is not used in great quantities for this purpose now because of its greater value in feeds. Small quantities go into a refined product to supply vegetable protein in human diets.

Cottonseed hulls are used largely as carbohydrate feed for cattle, but some are used as padding in upholstery and a limited amount as a mulching material in plant nurseries. Linters, that short fuzzy fiber, which sticks to the seed as it comes from the cotton gin, has wide use in making explosives, cellulose and as packing for upholstery.

Tobacco is an important money crop in South Carolina. The 1951 flue-cured tobacco crop occupied 132,000 acres and was grown in 31 counties of the eastern and lower central counties of the state. A production of 177,540,000 pounds brought the tobacco farmers nearly 91 million dollars and the average per acre yield of 1,345 pounds is a record high for this state. Tobacco is sold by auction and 52 sales warehouses located in 11 market centers operated in 1951.

In addition to the flue-cured tobacco, some aromatic tobacco is grown in five of the Piedmont counties and brought farmers additional thousands of dollars. A few acres of burley tobacco are also grown in this state.

Although this is not considered a corn growing state, South Carolina farmers last year produced almost twenty-six and a half million bushels of this grain with a farm value of about forty-four million dollars.

Many years ago, a South Carolina farmer produced 255 bushels on one acre of land and this record has not yet been equaled. Individual farmers still produce high yields and it is noteworthy that the average per acre yield has been almost doubled in the past few years.

Hybrid corn has entered the picture, and coupled with better farm practices, is responsible for greater per acre corn production.

Most of the corn grown in South Carolina is used on the farm as feed for poultry and livestock and as food for the farm families.

Seventy-nine flour feed and grist mills are listed by the State Department of Labor as operating in the state and this list does not include many small farm and community mills. The capital invested in these mills is approximately three and a half million dollars and the value of their annual product slightly over twelve million dollars. Almost a million dollars in wages was paid by these plants last fiscal year.

Forty-six other commercial food processing plants, not including canneries, bakeries, confectioners, creameries or meat packing plants, consume raw products of the farm. These, with a capital investment of a million and a half dollars, produce annually almost thirteen million dollars worth of finished goods, paying almost \$650,000 in wages to about 500 employees.

Oats and wheat are the most important small grain grown by South Carolina farmers. A crop of slightly over sixteen million bushels of oats was harvested this past year and the average yield per acre was 28 bushels. The oat crop is valued at fourteen and a half million dollars.

The wheat crop of three and a half million bushels brought farmers an additional \$7,350,000.

Rather dry weather prevented maximum yields of sweet potatoes, but even under these circumstances 2,380,000 bushels of sweet potatoes were produced and each year about five hundred cars are shipped to out-of-state markets. Quite a number of farmers own potato-curing houses in which the commercial crop is stored awaiting a favorable market. In these houses they are kiln dried as an aid to preservation and for better quality potatoes. Several large commercial houses are located in the sweet potato growing sections and a number of sections have community potato curing houses.

South Carolina usually ships more fresh peaches to market than does any other state in the United States. A large crop of about six and a half million bushels were produced and despite a relatively low price, they were valued at about thirteen million dollars.

Ten and a half million pounds of peanuts, valued at approximately two million dollars; four million pounds of pecans valued at almost a million dollars, and 371,000 tons of hay are among other crops grown.

More than 80 thousand acres planted in soybeans, 30 thousand in velvet beans, 38 thousand in lespedeza and 66 thousand acres in cow peas are among the summer legume crops grown in the state.

Although South Carolina was the leading rice-producing state more than a half century ago, the crop has gradually ceased to be of importance, but interest in rice growing is being revived. Interests from rice sections and in this state are planning to grow several thousand acres in the coastal areas this coming year and this may lead to a revival of the rice industry in South Carolina.

The total volume of 21 staple and 13 commercial truck crops produced in 1951 had a value of \$381,973,000.

Truck crops are grown to a more or less extent in practically all counties of the state but the larger acreages and greater varieties are produced in the coastal and coastal plain sections of the state.

Irish potatoes led the list of 1951 truck crops with a volume of \$2,250,000, followed in order by watermelons, \$1,982,000; snap beans, \$1,515,000, and cucumbers, \$1,474,000.

Other truck crops produced in commercial quantities were asparagus, lima beans, beets, cabbage, cantaloupes, lettuce, green peas, strawberries and tomatoes.

Among the industries tied in with crop production are the 17 commercial canneries which produce annually products valued at about two and a half million dollars. Fifty-four barrel, box, basket and veneer plants, making among other things some of the containers for shipping farm products, have more than ten million dollars invested in plants and equipment and produce annual products valued at about forty million dollars. Nearly six thousand people are employed by these plants.



Growing tobacco plants. Tobacco industry ranks second to cotton only in South Carolina.

A quick glance through the pages of the State Department of Agriculture Year Book shows many more industrial enterprises in the state closely connected with its agriculture include abattoirs and meat packers, creameries, seed cleaners and treaters, freezer locker plants, fence post and timber treaters, sweet potato dehydrators, pecan and peanut shellers, chick and turkey hatcheries, electric co-ops, poultry processors, insecticide manufacturers and livestock auction markets. Farm service centers including canneries, repair shops, potato curing houses and others have been developed in several hundred communities and are supervised by teachers of vocational agriculture.

Another industry directly influenced by agriculture is the fertilizer mixers. There are 78 of these scattered over the state and they produce an annual product valued at more than eight million dollars and give employment to thousands.

Noteworthy developments during the past year include the establishment of a million-dollar State Market near Columbia, a market at Greenville and a pecan auction market at Orangeburg.





Beef-type short-horns and herefords in Newberry County graze year 'round on ladino and fescue, which supports from one to four cows per acre.

## LIVESTOCK

**W**HILE field crop and commercial truck crops are important products of South Carolina farms, pasture improvement programs have stimulated a wide interest in livestock production.

Discussing developments and trends in beef cattle and hogs in the state, Professor L. V. Starkey, Head, Animal Husbandry Department of Clemson College, said "The hog enterprise in South Carolina as in most states, is based primarily on corn production. During recent years the per acre corn yield in South Carolina has almost doubled. This increase in corn yield furnished cheaper feed for hogs and consequently more profit for the hog producers.

Some varieties of Kafir corn, such as the Martin and Plainsman, are making good yields and are used as a

substitute for corn. Barley is also used to a limited extent for hog feed.

In South Carolina, unless the corn is locally grown, it usually sells for about 25 cents more per bushel than in the middle west.

Our year-round grazing system with small grains, soybeans and Ladino clover compensates for the higher price of corn. The mild climate in this area is favorable to hog production in that houses are not so expensive and weather is more favorable for farrowing.

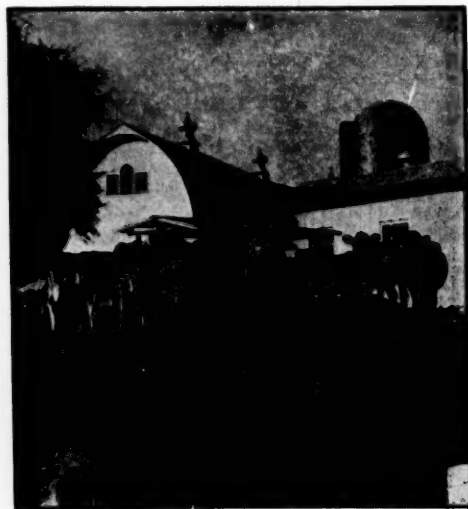
South Carolina has not produced enough pork to feed its population but at present our pork production is approximately equal to the pork consumption. Our annual production of hogs is now about one million.

The trend in pork production is affected by the corn hog ratio which is governed by the law of supply and demand. At present the corn hog ratio is the most unfavorable it has been for 17 years. This condition will, of course, adjust itself and South Carolina will probably continue to produce enough hogs to feed the people of this state. This seems to be a healthy situation which fits into our "live at home" program.

There has been a marked change in the quality of hogs produced. The increase in number of purebred breeders has had its effect. Type conferences are now doing much to keep the hog producers in line with the type and quality of hogs which the packers and consumers want.

Beef production is making the most rapid growth of any class of livestock. The two most important reasons for this increased interest are the shortage of labor and the "blanket of green." Since beef cattle require less labor than other classes of livestock and since we can have year 'round grazing for cattle, it is to be expected that this enterprise will expand.

The percentage increase in all cattle is greater in the South than in the nation as a whole. In 1951 there was an increase of 5% over 1950 in the United States, but in South Carolina and other southern states the increase was approximately 10%. The per cent of beef cattle increase is even greater than this.



Modern dairy barn and herd.



In South Carolina the most popular permanent pasture grass mixture for summer grazing is Bermuda grass, Dallis grass and White Dutch clover. Sometimes Lespedeza is included in this mixture. This combination of grasses should furnish grazing for about eight months during the year.

There are at least three combinations of winter grazing. Probably the most popular winter pasture is Ladino clover and fescue grass. This is a perennial well adapted to the heavy soils. The chief objection to this mixture is that cattle sometimes bloat when there is more Ladino forage than fescue.

The next winter forage of importance is crimson clover and Italian rye grass. The objection to this mixture is that it is annual and has to be reseeded each year. There is a reseeding variety of crimson clover which is being used with varying degrees of success.

The small grains such as barley, oats and rye are used successfully on some of the light soils.

When these forages are available for winter grazing one does not need to worry about labor, malnutrition, or sanitation.

The cost of purchasing foundation animals and establishing pastures is exceedingly high. Were it not for this fact, the shift to cattle production would be much faster.

We, of course, do not know what the future holds nor how soon prices may decline. Present conditions indicate that prices should remain steady for the next 12 months.

"It is not a good time," said Professor Starkey, "to get too heavily involved in debt, but it is an excellent time to cull our herds and improve the quality of cattle. It is also an excellent time to improve pastures and get to the point where cattle can be produced at a profit after prices get back to normal."

The dairy industry in South Carolina can best be discussed by Professor J. P. LaMaster, Head, Dairy Department of Clemson College, who says that at the beginning of World War II the major portion of fluid milk sold in South Carolina was delivered to the homes in glass bottles by producer-distributors. Government policy, together with the shortage of tires and gasoline, resulted in the expansion of milk pasteurizing plants in the larger cities and a wave of construction of small independent plants in the smaller towns. This trend not only helped the war effort but speeded up the trends for the more important growth of the dairy industry that has taken place since 1945.

The rapid industrial development in the State during the post-war period has brought about a consolidation of milk processing plants. This trend speeded up the acceptance of paper bottles and homogenization to where wholesale deliveries of milk have become standard practice not only in the cities but also in small towns and rural communities. The larger processing plants have established control laboratories to promote higher quality for the raw milk purchased. A dozen or more city plants have employed well-trained fieldmen to cooperate with their producers in expanding their operations by increasing the size of their herds and through the use of proved dairy farming practices.

Farm people have become buyers of pasteurized milk as members of the family start working in industrial plants. This trend has reduced the number of family



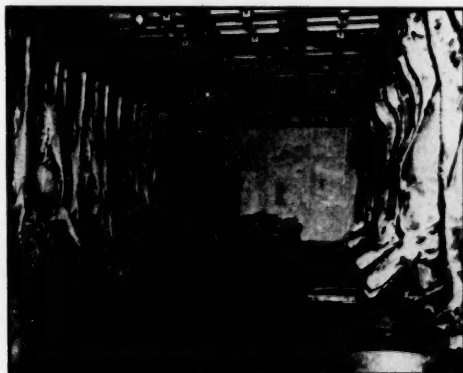
Dairy industry is rapidly developing in all parts of the state. Milk and cheese plants follow increase in dairy cattle population.

milk cows on farms and has tended to increase the size of commercial dairy herds.

As the pasteurizing plants increased the volume of milk handled they have expanded the manufacture of cottage cheese, cultured buttermilk, chocolate milk and ice cream for distribution in the same territory covered by their fluid milk routes. This trend toward diversification promises to stabilize the milk business by providing a market for all the milk produced throughout the year. The blended price for these many products develops a much more stable market for the producer than when only Grade A milk is sold.

The one milk evaporating plant in the state is located in Chester. A receiving station has been operating in Newberry for several years and in 1951 another receiving station for this plant was established in Anderson. The new station received up to 20,000 pounds of milk per day during the first summer and prospects are for considerable expansion in 1952. A very small proportion of the milk and cream used for manufacturing the 3,000,000 gallons of ice cream consumed is produced in the state. Here is the best market for further large expansion of dairy farming.

A butterfat testers license law was passed in 1951 with the Commissioner of Agriculture specified as the enforcement officer. Provision is made for the Dairy



Packing plant at Greenwood. Beef cattle industry has brought several new plants to the state in recent years, which marks beginning of promising industry.

Department of Clemson College to be responsible for the procedures and equipment standards used for the butterfat tests. Further provisions require that each applicant take short-course training or if college trained to demonstrate his ability to make butterfat tests and pass an examination at Clemson College to qualify for the license issued by the Commissioner of Agriculture.

Dairy farmers are accepting winter grazing as a major contribution to their feed problems. Experience with adverse winter weather and the results obtained with more suitable grasses and legumes for winter pasture, together with greater appreciation for summer pastures and silage, are forming the basis for sound grassland farming. During the five-year period 1937-41 the herds on Dairy Herd Improvement test obtained 21.2 per cent of their total feed requirements from pastures. In 1950 these records show that 43.4 per cent of these requirements come from pastures.

The total number of dairy cows has not increased significantly during recent years. This is accounted for by the fewer family milk cows now being kept on farms. There are more commercial dairy herds. The 172,000 dairy cows in the state in 1950 were valued at \$27,318,000 and returned a gross value, for milk used on farms and sold, of \$38,068,000.

Official records show the registered cattle to be producing at a rate of 5.4 per cent higher than the national average. The appreciation of the farmers for their cattle is reflected in the laws that have been passed within the last three years to promote area testing for Bangs Disease and another law requiring all cattle sold at livestock auction markets to be tested for Bangs Disease before they are eligible for return to a farm. These measures, together with calfhood vaccination and accredited herds, are trends toward the eventual eradication of Bangs Disease in the cattle herds of the state.

A progressive program for artificial insemination is in operation. The bull stud is located at Clemson College and is operated in connection with a research project on the physiology of reproduction and the regional program for breeding better dairy cattle in the South. Bulls of the Jersey, Guernsey, Holstein, Brown Swiss and Hereford breeds are used in this program. Twelve county cooperative breeding associations bred fifteen thousand cows in 1951. This program is expanding to new counties and within the organized units.

The South Carolina Dairy Association is an organization of the entire dairy industry of the state. It in-

cludes the dairy farmer, the milk processors and the manufacturers of dairy products. A full time Executive Secretary is employed to promote the welfare of the industry and to coordinate the efforts of all groups toward the building of a larger and a more useful dairy development in South Carolina.

"The poultry industry in South Carolina has increased particularly in the production of broilers and turkeys," declares P. H. Gooding, Head, Extension Poultry Division. "At present," he continued, "the yearly cash income from poultry and poultry products exceeds twenty million dollars. This represents more than 10% of the total average annual agricultural income for the state. In addition to the cash income from poultry and poultry products, the value of egg, fowl, and turkeys consumed on farms by farm families is fifteen million dollars or more annually. Approximately another fifteen million dollars is invested in incubators and hatchery equipment.

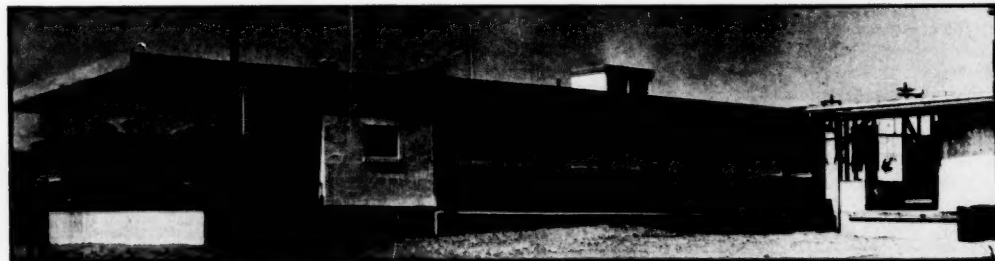
"Over ten million broilers were produced in South Carolina in 1951. This number does not meet the demands in the state. To supply each family in the state with one broiler per week would require that this number be doubled. Most dressing plants operating in the state now bring in broilers to meet their market demand.

"Egg production for commercial and hatchery purposes should be increased. On the basis of national egg consumption figures, only about half as many eggs are produced in the state as consumed.

"At present only about three-fourths of the hatching eggs used in the state are produced within the state. If hatcheries within the state supplied all the chicks raised in the state, the hatching eggs would have to be more than doubled.

"Over a million turkeys were grown in the state in 1951. This places South Carolina 17th in turkey growing in the nation. There are several good turkey hatcheries in the state and also several modern dressing plants. This affords a good source of poults and an outlet for adult turkeys. With these facilities and favorable climate for growing grazing crops, South Carolina will continue to increase in turkey production."

"South Carolina agriculture, you see," declared Agriculture Commissioner J. Roy Jones, "is well balanced with industry and when considered with added features as successful farm organizations such as the Farm Bureau, The Grange and numerous agricultural fairs and festivals gives a rounded rural life to its farm people."



Poultry industry is not only producing big cash returns for South Carolina farmers, but is bringing business to a wide variety of other industries.



View of Charleston, S. C. plant of West Virginia Pulp and Paper Co., a kraft pulp and paper mill which produces about 250,000 tons of paper and paperboard annually. The mill employs 1,150 and has an annual payroll of more than \$4,000,000.

## FOREST PRODUCTS

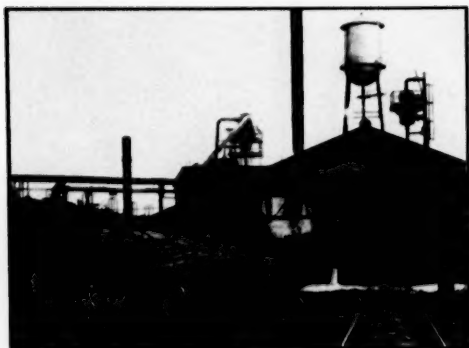
**B**IG and little business men share in the \$300,000,000 forest products industry which is the second largest industry in South Carolina. A hundred thousand people depend on forest industries for a major part of their livelihood. Big and little plants worth over two hundred million dollars are supported by half a billion dollars worth of standing timber on twelve million acres of forest land.

Indicative of the importance of forest industries to the state is the fact that in the period 1936 to 1947 the number of primary wood-using plants increased from 829 to 1,715. The state's forest land is made up of 7,300,000 acres of pine and 4,600,000 acres of hardwood. Although new uses are increasing the demand for hardwoods, the greatest amount of wood being used by industry in the state is pine.

As important as wood-using industries are now to South Carolina, the forest land, if properly managed and properly protected, could support more than twice the industry it is now supporting. Long-range industrial interests are bringing about good forestry practices on more and more woodland acres each year. Ten per cent of the forest land of the state is now included in the South Carolina Tree Farm System, which means that it is being handled according to good forestry practices, for continuous, sustained production.



Here is pictured the present and future source of raw materials used by forest industries.



Pressure-croosoted fence posts are removed from treating cylinder on tram cars at Charleston wood treating plant of Koppers Co., Inc.

## LUMBER INDUSTRY

Sawmills used approximately half of all the timber cut in South Carolina. Between 1936 and 1946 the number of sawmills in the state doubled—from 767 to 1,575. Increased demand for building materials is responsible for the great increase in number of sawmills over the past ten years. Most of the new mills are small portable ones which can move into fairly small tracts of timber. The sawmills, big and little, account for a cut of one billion board feet each year.

No institution is more typically a product of second-growth forests than the small sawmill. The rise of the small portable mill and the decline of the large permanent types shows what sweeping changes in a forest industry can be caused by change in the nature of the timber supply. The large band mills, which were dominant in South Carolina in the early 1900's, were dependent upon heavy concentrations of virgin timber. By 1925, most of this timber was exhausted and the large mills were gradually replaced by small portable plants especially adapted to operating small lightly stocked stands of second-growth timber. When the timber be-



Utilizing only hardwood, this machine at Sonoco Products Co., at Hartsville, produces 125 tons of corrugated board per day.

comes too scarce in a certain locality, the small mill operator can either shut down or move on to other timbered areas. Likewise, when lumber prices are not to his liking, he can put his equipment in storage and not worry too much about fixed charges and depreciation. Conversely, when lumber prices are high, these idle mills can quickly come back into production. A widely scattered supply of poor-quality timber, the uncertainty of how long the supply will last, and vicissitude of lumber prices—all these operate to the distinct disadvantage of large permanent mills with heavy initial capital investment and high fixed charges. Currently and in the foreseeable future, small sawmills reign supreme in the second-growth forests of South Carolina.

## PULP AND PAPER PRODUCTION

One million cords of wood or 1/5 of all timber harvested in South Carolina goes to the pulp and paper industry. In the past fifteen years the pulpwood demand



A hot plate press making plywood out of veneer at the Darlington Veneer Co. plant at Darlington.

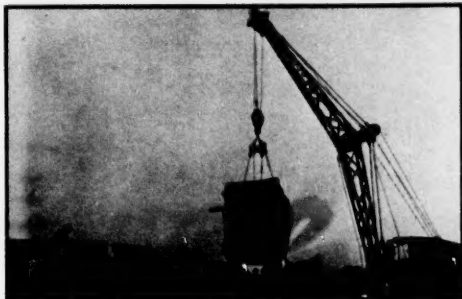
has increased twenty times. This has been brought about by the fact that in 1936 only one pulp mill (Sonoco Products at Hartsville) has been increased to a total of three in the state, with additional out-of-state mills drawing heavily from the woodland area.

Although the use of hardwoods in the various mills is being increased, the greatest drain on the forest land of the state is still pine. The Sonoco Mill at Hartsville is the only pulp mill that uses hardwood exclusively. Products manufactured here are primarily corrugated board, and spools and tubes used in the textile industries of the state and the South. Built in 1937, both the West Virginia Pulp and Paper Company plant at Charleston, and the International Paper Company plant at Georgetown, both making paper board, have been enlarged considerably since.

The pulp and paper industry in the state provides a ready market for smaller trees removed to improve growing conditions on crowded stands. Without this outlet for small timber, improvement cuttings would have to be made at a loss to the landowner. Both International Paper Company and West Virginia Pulp and Paper Company have established several concentration



This is sawmill of the Santee River Hardwood Co., which cuts hardwood and pine lumber and ships it to all parts of the country.



Loading pulpwood at the International Paper Co. concentration yard at Patrick. Here landowners sell wood directly to the paper company.

yards over the state. The yards make it possible for more little business men to operate throughout the state, and give landowners an opportunity to do their own cutting and hauling. Pulp and paper companies, namely West Virginia Pulp and Paper Company, International Paper Company, Champion Paper and Fiber Company, Union Bag and Paper Company, Southern Paper Board Corporation, and Sonoco Products Company own a great portion of the 19% of the forest land owned by industry in the state. These companies are extending good forestry practices and fire protection over most of their holdings. The greater portion of the land they own is now included in the South Carolina Tree Farm System. Over 6,000 acres were planted in pine trees purchased from the state nursery during the 1951 season. The paper companies also helped many landowners plant trees on their idle acres as well as give them sound advice concerning their woodland management problems.

## OTHER FOREST INDUSTRIES

There are a variety of industries other than pulp and lumber, both big and little, that depend on the forest for raw materials. These industries are becoming more important from a utilization standpoint since many of the smaller ones use some of the less desirable species that cannot be used for lumber and even pulp.

The furniture manufacturing industry realized fourteen millions of dollars in receipts in 1950. The 57 plants in the state employ two thousand people.

There are some 62 plants in the state that make barrels, baskets, boxes, crates, plywood and veneer. Thirty more plants manufacture various other products such as beehives, venetian blinds, hickory handles, tool handles, toys, poles and cross ties, bobbins, dowels, and picker sticks.

Three large and one small pressure treating plants in the state preserve-treat poles, piling, lumber, posts and cross ties. Preservative treatment of fence posts is fast becoming an important product of some of these plants. Some sixty-five small open vat treating plants are scattered throughout the state. Their primary product is treated fence posts, and some lumber used in local construction. Rapid expansion of the cattle industry

has placed additional demands on the forest products industry for treated posts.

## FOREST CONSERVATION

The South Carolina State Commission of Forestry is primarily concerned with promoting better forest management and better forest fire protection on the forest lands of the state. Hand in hand with the Commission of Forestry, the U. S. Forest Service, Clemson College Extension Service, Vocational Agriculture Division of the State Department of Education, and Industrial Foresters and others are working toward more productive woodlands in South Carolina.

In addition to providing a service to the landowners of the state, the Commission administers the activities on four State Forests which include 172,300 acres of woodland.

The Commission's nursery at Wedgefield is the largest single forest tree nursery in the United States with a productive capacity of thirty million trees annually; 2,473 planters received over twenty million trees which were planted on the many idle acres of the state last year.

Through an act of legislature in 1945, the State Commission of Forestry extends assistance to every landowner in the state in preventing and suppressing woods fires. Annual or periodic fires account for a high per cent of the 7½ million acres of understocked woodland in the state. Each year, as new crops of little trees germinate and start to grow, the many thousands of small fires which creep through the woods kill them before they ever have a chance to show themselves above the straw and grass. Much of the Commission's fire prevention work is directed to the education of landowners, tenants, and the other citizens of the state to the fact that even though fires do not kill the larger trees, they do kill the small seedling which is so necessary to keep our forest lands producing.

Expansion of present industrial plants and the construction of new wood-using plants, depend heavily on what improvement is made in restocking the understocked woodlands of the state. With good management and fire protection, our woodlands can more than double their growth of timber, thus opening the door to doubling the industrial potential of the state's second largest industry.





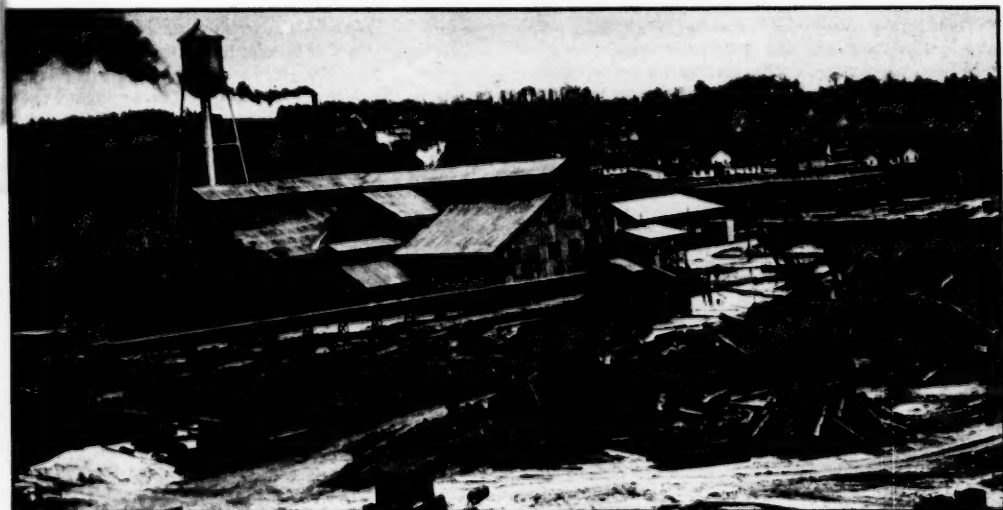
Timber! Pine trees like this mature in a few years and support a growing sawmill industry.



Second growth pine timber. This is a typical scene in a South Carolina pine forest.



Florence plant of American Lumber and Treating Co. where forest products are treated with preservatives.



Poinsett Lumber Company plant, at Pickins, is a source of cabinets for Singer Sewing Machines. Plant built by the Daniel Construction Co.





Quarry of the Winnsboro Granite Company at Rion, which produces world famous Winnsboro Blue Granite.

## MINERALS

THE value of the major mineral products of South Carolina for 1951 stood at \$11,500,000. This compares with the 1940-41 figure of \$5,280,000, and in terms of actual production it also represents an increase for 1951 over the output of a decade ago.

The state contains vast deposits of non-metallic minerals under most of the Coastal Plain. A broad belt of kaolin and clay runs across the state along the Sand Hill zone. Between that area and the coast, and underlying more than half of the total area, are located the limestones and marls, and near the coast occur the phosphate rock deposits most of which lie in or along the river beds.

The high grade clay produced in 1951 amounted to more than 700,000 tons. The white clay has an important use as a filler in the manufacture of paper and to a smaller extent in the manufacture of rubber. It is also used in the manufacture of electrical porcelain, sanitary ware, and other ceramic products. In fact all of the constituent materials including many types and grades of kaolin, silica, feldspar, etc., exist in the state and are available for the manufacture of chinaware and innumerable other products. The outlook for expansion in this field appears quite bright.

Crystalline limestone is found in the northern part of the state in the Piedmont Plateau. The areas of limestone that exist in the Coastal Plain contain the softer variety which are particularly suitable for many purposes such as agricultural lime, slaked lime, cement, chemical production and many kinds of rock wool, etc. A new plant to produce cement from this limestone has recently been built.

Phosphate rock deposits lie along the waterways near the coast from Berkely County south to Beaufort County. Sixty years ago phosphate mining was a considerable and profitable industry in the state. With the present plentiful supply of cheap electric power, and the further development of the chemical uses of phosphates,

these deposits have again become very important to the state's economy.

Other minerals, such as sillimanite, spodumene, topaz, vermiculite, corundum, feldspar and many others have been located. Some are being mined and opportunities abound for new developments. Several years ago, deposits of sillimanite were discovered in Greenville and Spartanburg counties. This is one of the critical materials used for spark plugs and high grade ceramics. About the same time a corundum deposit was discovered up in York County. It is used for grinding quartz plates that are used in radio sending apparatus.

Vermiculite is probably the most valuable of all of these minerals considering the uses to which it is being put today.

For millions of years, buried in the South Carolina soil of the Piedmont, a strange mineral has existed which of late has revolutionized certain old established procedures in the building industry. It is rare indeed, in this time, that such basic discoveries are made. This mineral is named *vermiculite* from the Latin word *vermiculus*, meaning *worm*, because when particles of it are exposed to flame, they twist and squirm as though alive, and expand to many times their original size.

Vermiculite is a hydrous silicate, an alteration of mica, which, when heated at 2000° F. becomes a mineral, light in weight and with fireproof insulating qualities. In this process of exfoliation millions of microscopic voids are created through which heat cannot pass, and each infinitesimal flake shines like burnished metal to shatter and reflect back the heat waves. These properties render the mineral of great value for home insulation and for fireproofing plaster and concrete when it is used as an aggregate in place of sand and stone.

Due to its extreme lightness one 4-cubic-foot bag of vermiculite will replace 400 pounds of sand or stone. Each cubic foot weighs only from 6-8 pounds, accord-



Daily the Greenville & Northern Railroad brings hopper cars of vermiculite ore from the Zonolite Company's mines to their plant at Travelers Rest to be processed.

ing to the amount of expansion desired; whereas sand weighs 100 pounds per cubic foot. It is therefore obvious that a plasterer can apply the material to walls and ceilings without the fatigue which results from handling all day long the much greater weight of sand plaster. And hidden in this new plaster are the fireproof and insulation values which are inherent in the material.

Thus millions of dollars have been saved in recent years in the steel construction of multiple story buildings in the New South. Lightweight floors and roofs, the fireproofing of steel columns and girders with vermiculite have permitted drastic savings because of reduction of the amount of steel. During the last war, in one commercial bank building in Texas, the architects saved enough steel to build an ocean liner by taking advantage of this lightweight, fireproof construction. Many hundreds of acres of roofs on schools, hospitals, warehouses and business buildings have been given thermal insulation through the expedient of replacing sand and stone with expanded vermiculite in the cement mix.

Home insulation with expanded vermiculite is one of the simplest, least expensive and most efficient ways of bringing comfort and health to the family. Yes, the householder just pours his own insulation between the joists of his attic. Clean and not irritating to the skin, he buys a few bags as he can afford it and insulates his house himself. It never packs down, won't rot, lasts as long as the building and will actually snuff out flame.

Zonolite Company, a national organization, has been responsible for developing this great natural resource of South Carolina. The largest expanding and processing plant in the world is located at Travelers Rest, S. C., adjacent to the mines. Here the ore is dried and cleaned. It is fully processed for the various products sold in surrounding states and also shipped, graded for expanding, to supplementary plants and distributing points to serve the New South, from Washington, D. C. to Texas.

At Travelers Rest the plant also produces new products for other industries such as a packaged crab-grass killer for the largest company in the country specializ-



Giant Portland Cement plant near Holly Hill which is now furnishing cement for world's greatest engineering project at Aiken. With additions now under construction the plant will have a capacity of 1,000,000 barrels annually.

ing in lawn care. A joint packing compound is manufactured for a railway supply house in Pittsburgh, for use in track maintenance. There are other new products and applications in work: a lightweight refractory brick; low cost, ready mixed and bagged fireproof acoustical plaster to cut down noise in auditoriums, stores, restaurants, bowling alleys, business offices; a high temperature insulating cement for boilers and steam pipes.

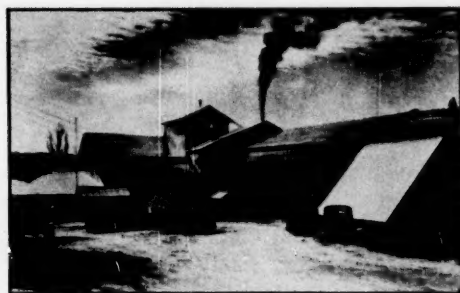
Perhaps one of the most fabulous properties of vermiculite is the fact that modern science has proved that it aerates the soil and holds moisture and plant nutrients available to garden and crop plants, ornamental shrubbery and lawns.

This horticultural grade is used extensively by nurseries and growers for starting seeds and cuttings and is sold by seed and feed stores. Manufacturers of fertilizer condition their mixes with this material to promote free flowing and prevent caking.

South Carolina is making a fundamental contribution to the wealth and progress of the southern states because of this versatile mineral, vermiculite. Although the processing of it entails untold labor in moving many tons of clay and stone, infinite attention on the part of mineralogists, chemists and engineers in product control, yet it is produced at a price which makes it profitable to use in place of common sand and stone and to promote better crops in conjunction with the products of our fertilizer manufacturers. New uses and applications for industry of many kinds are surely in the offing.

North of the Sand Hills, in the Piedmont Plateau, and approaching the mountains, there are granites and other non-metallic minerals, besides various metallic ores. Some of the valuable minerals occur in traces not fully explored. Manganese and iron occur in large, low-grade masses. Deposits of manganese are found in Abbeville, Greenwood, Cherokee and Spartanburg counties. Large bodies of low grade iron ore exist in the northern counties.

The value of stone quarried in South Carolina in 1941 was slightly over \$2,500,000, an increase of \$1,000,000 over the 1938 value. Much of this stone is crushed for use in surfacing highways and for other purposes, but it is also extensively used as dimension stone for buildings and by the monument industry. The building granite is of superior quality in



Kaolin Mill, Southeastern Clay Company, Aiken County.

resistance to weathering and makes a very beautiful finished structure. Decomposed granite is sometimes used in the making of ceramic materials such as buff colored brick.

The sand and gravel produced in South Carolina in 1941 had a value twice that of 1938. The gravel is used not only as aggregate in concrete but as railroad



Campbell Limestone Company's quarry near Gaffney. Company also operates large quarry near Easley.

ballast. The sand is used chiefly in making mortar and concrete. It is also used as filter sand in municipal waterworks and for sand blasting. High grade silica sand deposits for use in making glass have been opened up. Some of these deposits analyze 99 per cent silica with less than one-tenth per cent iron oxide.



Modern brick plant at Greenville, which is one of several in the state. There are vast deposits of clay in South Carolina suitable for products of all types.



Plant Urquhart, steam generating station now under construction on the Savannah River, will add an ultimate 300,000 kw to South Carolina Electric and Gas Company system covering twenty-three counties.

## POWER

**S**OUTH Carolina is extremely fortunate in having three of the most substantial business-managed power companies blanketing the state with their power lines.

These companies have constantly set a mark far ahead of actual requirements for the expansion of industry in the state, and at the same time have maintained active departments to help develop new industries.

Forty-five per cent of the entire state is served by the South Carolina Electric and Gas Company, while the

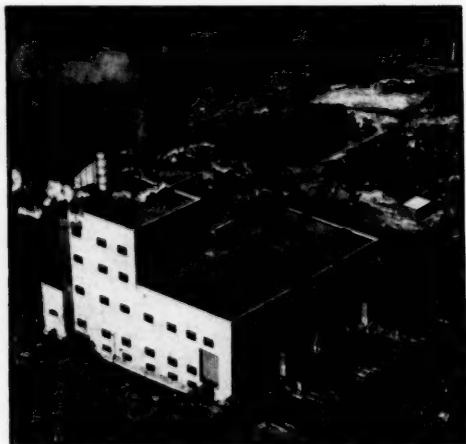
Piedmont area is served largely by Duke Power Co., and the area in the northeast section of the state is served by the Carolina Power & Light Co.

The South Carolina Electric & Gas Co. from its Columbia headquarters operates four hydro-electric and three steam-generating plants with more than 1,000 miles of transmission lines in 23 counties. This area, which was amply served by 40,000 kilowatts in 1935, needed 250,000 kilowatts productive capacity in 1951, and continues growing rapidly. Although predominantly agricultural, the SCE&G territory includes South Carolina's two largest cities, Columbia and Charleston as well as 290 other cities, towns and communities.

This area also includes the entire site of the Atomic Energy Commission's new H-Bomb materials plant on the Savannah River in Aiken and Barnwell counties. In addition to its regular mounting load, SCE&G is supplying all construction power on the project, and has contracted with DuPont corporation to provide 30,000 kilowatts of operating power when the plant begins production.

A brisk expansion program initiated by SCE&G as the close of World War II has enabled the company to keep ahead of its requirements and has resulted in the addition of one new steam electric plant and start of construction on another.

Oil-burning Plant Hagood, located on the Ashley River just north of Charleston, was placed in operation in December, 1947, on completion of its first 25,000 kw unit. Capacity was doubled in 1950 with the addition of a second unit, and again doubled to 100,000 kw in January of this year when "number three," a 50,000 kw unit, went on the line. The plant at present represents an investment of approximately \$11 million.



South Carolina Electric and Gas Company's Plant Hagood at Charleston recently expanded to 100,000 kw capacity.

SCE&G's newest project in its expansion program is Plant Urquhart, a new coal-burning steam-electric station located on the Savannah River 14 miles west of Aiken, near the AEC plant site. Ground was broken by Governor James F. Byrnes on February 28, and the first 75,000 kw unit is scheduled to begin operation in April of next year. A second 75,000 kw unit will start producing the following July, and two more units will bring the plant to its ultimate 300,000 kw capacity at a total cost of \$45 million.

Providing electricity to 159,633 South Carolina customers, SCE&G estimates book value of its properties, plants and equipment at \$104,968,748. During 1951 the company invested \$10,406,898 in new production and distribution facilities, and is planning to invest more than \$50 million during the next three years in its expansion program to insure adequate capacity.

The company has 1,711 employees throughout its service area and operates transportation and gas systems in Columbia and Charleston as well.

By every economic index the Piedmont section of the Carolinas has made significant advances in the past year, continuing what has amounted to a boom since the end of World War II. This is certainly true measured by the index of electric power demand in all categories.

During the last two years particularly the Duke Power Company has experienced unprecedented increases in demand for electric service. During 1951 the Duke Power Company was required to produce 2,250,000,000 kilowatt hours in excess of the 1949 output. This block of energy is equal to the total annual output which the Company built up during the first thirty years of its existence. This two year growth represents an increase of 38% and is substantially above the national increase of approximately 27% during the same period.

Not only does the Company have thousands of new customers but the average customer today is using his

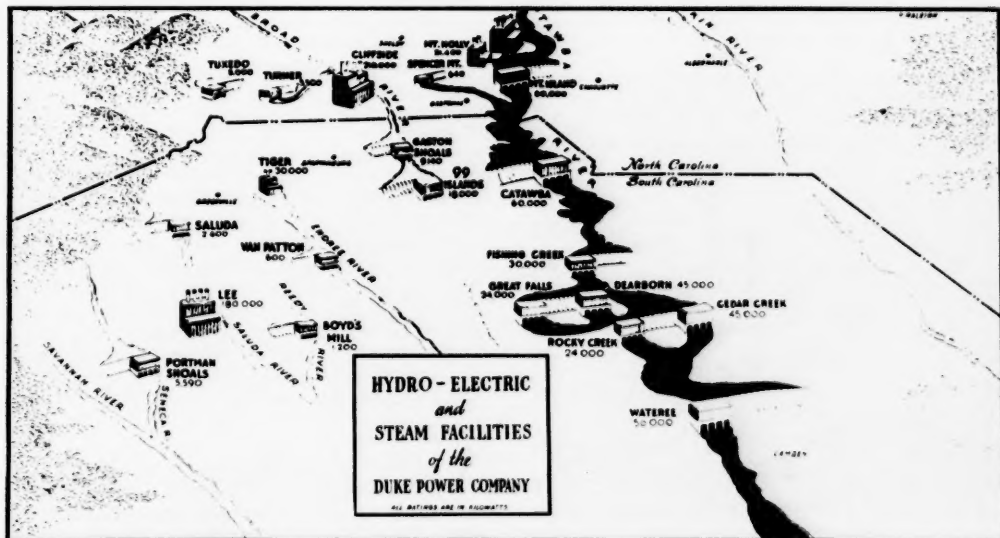


Saluda hydroelectric plant of the South Carolina Electric & Gas Company.

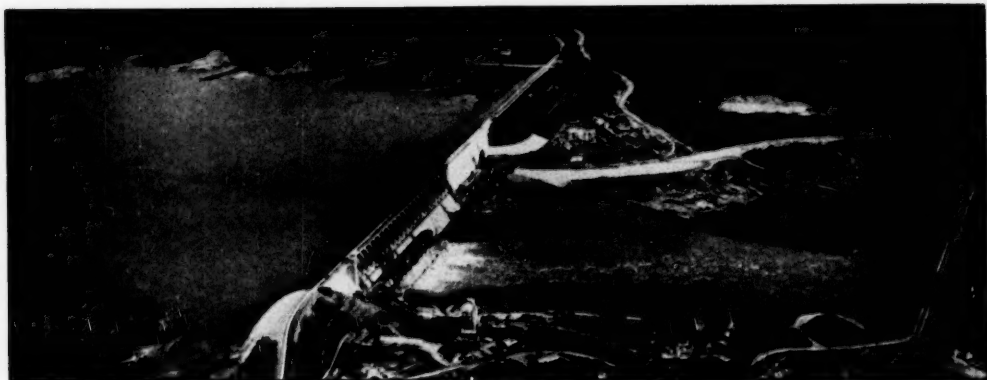
electric service for more purposes and in greater amount than ever. Average residential consumption last year was 2625 kilowatt hours, double the 1945 average residential consumption of 1300 kilowatt hours and some 43% higher than the national average of 1830 kilowatt hours.

To keep ahead of the very large increase in demand for electric energy, the Company has built and is now building major additions to its electric generating, transmission and distribution facilities.

Included in this program are two 65,000 kw turbo generating units at the Cliffside steam station placed in operation in 1948; two 70,000 kw units at the Dan River steam station near Leaksville, N. C. which went into service in 1949 and 1950; two 90,000 kw units at the Lee steam station near Williamson, S. C. which went into service in 1951; two 100,000 kw additions to the River Bend steam station near Mount Holly, N. C., scheduled for 1952; two 125,000 kw additions to the







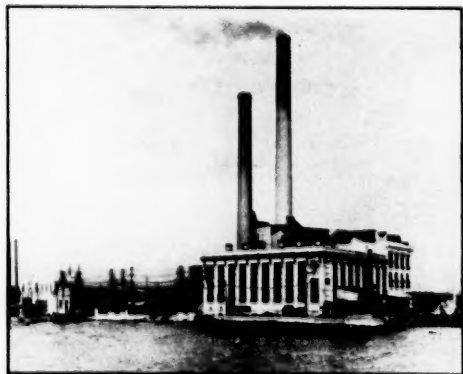
Clark Hill Dam

Buck steam station near Salisbury, N. C., scheduled for 1953, and two 125,000 kw units for River Bend steam station scheduled for 1954.

Actual expenditures for additions to the electric generating, transmission and distribution system amount to \$111,280,000 during the five year period 1946-1950 inclusive. Expenditures in 1951 alone amounted to approximately \$34,000,000. Additional expenditures of approximately \$109,000,000 must be incurred during 1952, 1953, and 1954 for additions now under construction or projected. The total estimated cost of net additions in the current expansion program during 1946-1954 is expected to be in excess of \$250,000,000.

In our present economy these large additions to the Company's electric plant have had to be built and are now under construction at cost levels of equipment, of materials, and of labor which are substantially higher than the levels prevailing during the pre-war period.

The tremendous expansion just described providing large, modern and efficient steam-electric generating centers capable of mass production of dependable electric energy has been engineered on a basis of growth study and anticipated requirements in the area with a view to gearing the power system efficiently to the needs of the region it serves at all times.



Steam electric generating plant.

Electric meters served by the Duke Power Company have increased from 327,000 in 1945 to 664,000 at the present time, an increase of over 100%. Annual residential requirements have increased from 349,000,000 kilowatt hours in 1945 to over 1,200,000,000 kilowatt hours at present, an increase of 242%. Individual residential customers now number 446,000. More than 180,000 rural customers are being served by means of the Duke Power rural electrification network of over 18,000 miles of distribution lines. Since 1945 this company has constructed more than 5,000 miles of rural lines and has connected 70,000 rural customers.

During this same period Duke Power has provided large blocks of power for the increasing requirements of existing industries. At the same time it has also provided power for over 20,000 new commercial and industrial power customers, an increase of almost 50% in the number of such customers. In no case has any industry been refused service or had its requirements curtailed.

Additions to the Duke Power System just described are expected by 1953 to increase the system capability to 10,250,000,000 kilowatt hours a year. This exceeds by two and a half times the maximum output required of the system in any year during World War II. These additions consist of new generating plants with the necessary transmission and distribution lines and substations necessary to deliver the additional energy. The generating plants are all high efficiency steam-electric turbo-generating units of the most recent design.

The Duke Power Company was once a hydro-electric company, depending on its highly developed series of dams and power houses along the Catawba River. In the early years hydro-electric supply was adequate and very little steam was generated until the drought years of 1925, 1926, and 1927 when considerable steam was necessary. Since that time the Company has operated as a combined hydro-electric and steam-electric generating system, with hydro-electric output a constantly diminishing factor in total generation.

The present installed capacity of the hydro-electric generating plants on the Duke system is approximately 500,000 kilowatts. The peak load capacity of the Duke steam generating plants is 848,000 kilowatts. Plants



now under construction will increase this capacity by 690,000 kilowatts by 1953, making a total steam generating capacity of 1,538,000 kilowatts.

In the area of water conservation and land management, the Duke Power Company has for the past thirteen years been engaged in an intensive program of soil conservation, farming, and forestry. This program is an enlargement and extension of its farm management operation of previous years. It includes extensive terracing and contouring, educational work in cooperation with the U. S. Soil Conservation Service and other agencies, and planting of seedlings on thousands of acres of land that has been eroded or is otherwise unsuitable for crop cultivation. This planting program is presently going forward at the rate of over 2,000,000 seedlings a year. In extent the lands affected by this program include about 200,000 acres above water and about 50,000 acres in reservoir basins.

Although the main purpose of the program is watershed protection and run off control, the sustained yield management of the forest is now producing and will eventually produce an annual cut of wood products that will be a substantial contribution to the many woods products using industries of the two states.

Carolina Power & Light Co. began its operations back in 1908, when electric lights were considered a luxury and the electric street car was a bane to the horse and buggy trade. At that time, CP&L served 1,147 customers, all of which were located in North Carolina towns.

The company now has 9 hydro-electric generating plants and 4 steam-electric generating plants, with a total installed capacity of 465,100 kilowatts, and has 184,000 kilowatts available from purchase under firm contract. It has 274,121 customers in 272 communities, served at retail, and 23 communities served wholesale in North and South Carolina. It maintains 19,107 miles of line. In 1951 the company grossed \$39,871,321. It has 1,808 employees and an annual payroll of \$6,100,000. The year's tax bill was \$9,063,225.

In 1948 Electric Bond & Share Co. was divested of any financial connection with the company, and today Carolina Power & Light is a completely independent



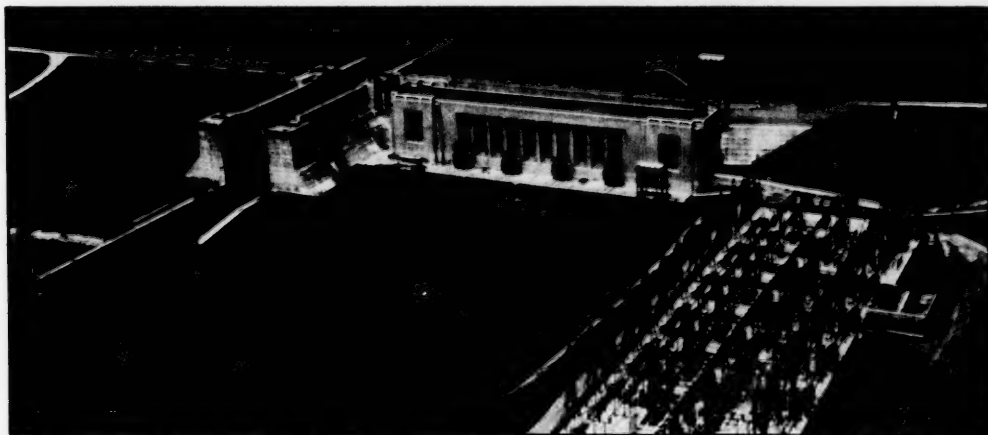
Sumter sub-station of CP&L. This company has vast system covering much of northeast section of the state.

utility. It has over 30,000 shareholders, none of which owns as much as 2 per cent of the outstanding stock. All its officers and directors are residents of the two states it serves.

The territory served by Carolina Power & Light Co. includes portion of the coastal plain and lower Piedmont sections of the two Carolinas, extending from the Virginia line almost to Columbia, S. C., a distance of 250 miles. As the result of a merger recently completed, through which CP&L acquired the Tidewater Power Co., its eastern area will now extend to the Atlantic Ocean.

A growing consumption rate and the addition of hundreds of new customers last year sent CP&L sales to a new high of 2,736,982,000 kilowatt hours, or an 18 per cent increase over the previous calendar year.

Increased sales resulted from the delivery of large amounts of power to neighboring utilities, and to an aluminum company located outside the company's service area, and also the addition of 14,000 new customers, bringing the company's total to 274,121. While the bulk of these new users were residential and rural consumers, they included scores of new industrial con-



Dam on the Santee-Cooper Power, Navigation and Recreation Development, which is operated by the South Carolina Public Service Authority.

sumers, representing the increased industrial development of the Carolinas.

In addition to these three great companies, there are two major publicly-owned operations. Most important of these is South Carolina Public Service Authority, which operates the Santee-Cooper Power, Navigation and Recreation Development. It serves over 10,000 retail customers, and has an investment in utility property in excess of \$65 million. As an example of the size of its operation, its fifteenth annual report for the year ended June 30, 1950, stated that improvements for the year had amounted to \$1,086,130.94. Construction work in progress as of that time amounted to \$1,309,425.31, which was to be paid for out of net income or earnings.

During the year under discussion, the state's equity in its public power system grew to \$39,270,922.56, an increase of \$1,086,628.56 for the year.

The other publicly-owned operation is the Buzzard Roost Hydroelectric Project owned and operated by Greenwood County. Its power plant is located on the Saluda River between the counties of Greenwood on one side, and Laurens and Newberry on the other side. The plant provides power to western South Carolina. Greenwood county also owns and operates a rural electric system independent of the Buzzard Roost plant which is now serving approximately 95 per cent of the rural residents of the county.

## TRANSPORTATION AND PORTS

**S**ERVING not only South Carolina, but large southeastern and midwestern manufacturing areas as well, the port of Charleston boasts the most extensive facilities and most active commerce of any South Atlantic seaport.

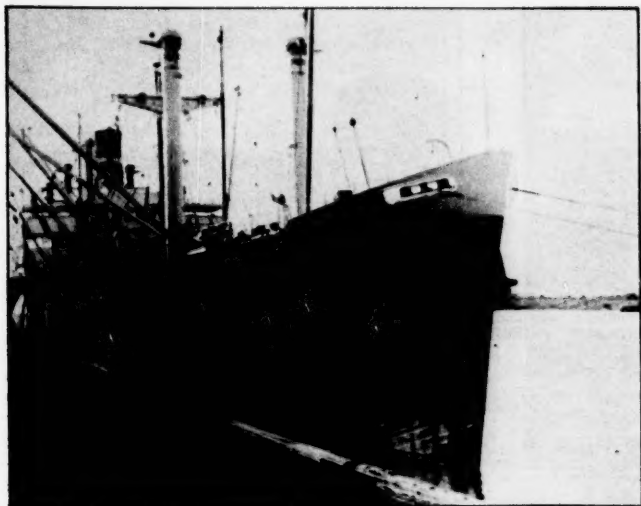
Only seven and a half miles from open sea, Charleston's land-locked natural harbor is one of the world's finest, churning today with the constant passage of steamships where windjammers first dropped anchor more than two centuries ago. Major facilities at Charleston are owned and operated by the South Carolina State Ports Authority, a non-profit state agency

also charged with the development of the state's other two ports, Georgetown and Port Royal.

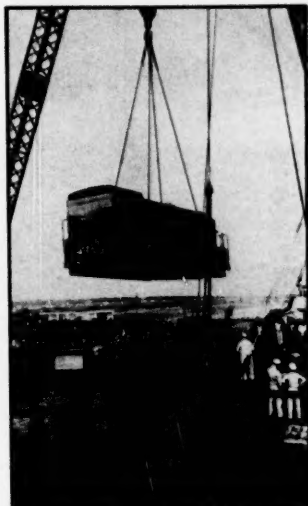
One of the country's most modern and extensive shipping facilities is the authority's \$20,000,000 North Charleston Terminals. The marginal pier, forty feet wide, is 1,938 feet long, berthing four vessels. Cargo may be handled direct from rail cars on the double marginal tracks, or from adjacent headhouses. Almost a million square feet of modern tile-walled, concrete-floored storage capacity is available. Headhouses for assembling cargo totaling 154,000 square feet of space are supported by 48 contiguous warehouse sections of



Only seven and a half miles from the open sea, Charleston's natural harbor is one of the world's finest. For over two hundred years the port has handled raw materials and products of the world.



One of the fleet of ships of South Atlantic Steamship Company docked at the Port of Charleston. Boats representing firms and countries from all over the world dock regularly at the Port.



Diesel Locomotive is loaded by "Big Boom," 120 ton capacity crane, largest of its kind South of New York.

16,000 square feet each, all with dry sprinkler protection.

A large U. S. Customs bonded warehouse furnishes bonded space at shipside. Specialized warehouses provide extensive space for storage of such materials as chemicals, fertilizer, ore, and other bulk cargo.

Other state-operated general cargo docks include the Columbus Street Terminals, Union Piers 1 and 2, and the 1,000-foot long concrete Ordnance dock.

Latest type mechanical equipment is a feature of the state docks, where a 120-ton capacity stiffleg derrick crane, largest capacity land-based commercial crane south of New York, handles heavy lifts. Smaller lifts are made by locomotive and crawler cranes, and other specialized equipment. Modern switching locomotives, tractors, trailers, and fork lift trucks ranging up to 16,000 pounds capacity provide rapid handling.

Charleston has four railroad piers, including the Southern Railway export coal terminals equipped with the only automatic tipple south of Hatteras, and a fully mechanized banana pier. Seven oil terminals receive and discharge petroleum, two terminals specialize in

cotton and are equipped with compresses, and there are ore, fertilizer, and other bulk commodity piers. Altogether, the port offers 55 piers, wharves and docks, 44 on the Cooper River, eight on the Ashley, and three on Shipyard River.

Last year saw more than \$6,000,000 spent on new waterfront facilities and improvements to shipping terminals at Charleston, keeping pace with demands of growing cargo movement. Among privately-owned concerns, Charleston Tidewater Terminals, Inc., extended its pier apron and made other substantial improvements to its downtown terminals. Charleston Shipyards, Inc., invested nearly a million dollars in refurbishing drydocks, installing cranes and other equipment and facilities to give Charleston one of the South Atlantic's most modern shipbuilding and repair yards. The Southern Railway coal tipple was placed in full operation for exports to Europe, the Pittsburgh Metallurgical Company built a new dock to receive ore shipments, and the Hewitt Oil Company constructed new oil terminals on the Cooper River.

During the year the ports authority acquired and



Charleston leads the nation in long staple cotton imports from Egypt and Peru. Fibre is bound for South's mills.

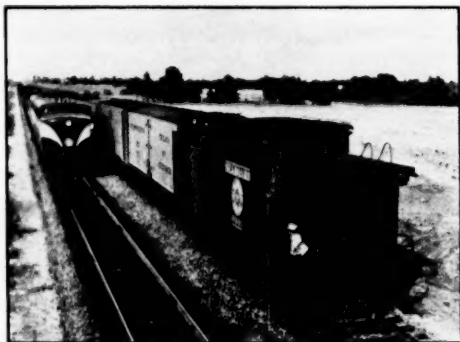


Charleston Shipyards has recently been extended, left foreground, and equipped with most modern facilities.



Tractors and other machinery from mid-western manufacturers are regular Charleston cargoes.

placed in commercial operation the \$2,000,000 former Army ordnance pier, completed dieselization of its waterfront switching railroad serving Cooper River terminals, and made substantial improvements to its



Seaboard Air Line Railway serves large section of the state on system that extends from Norfolk through the Carolinas and all of Florida.



Charleston is Southeastern distribution point for liquid industrial chemicals brought through the Dow terminals.

facilities at the North Charleston terminals, Union Pier, and the Columbus Street terminals.

Tonnage figures are expected to expand considerably during the current year. Overall port tonnage has doubled its pre-World War II average with South Carolina seaports, including Georgetown and Beaufort with Charleston, handling 4,598,564 tons during 1950, the last year for which official government figures are available. Of last year's tonnage, state piers handled some 500,000 tons, representing newly developed "high value" cargo such as textiles, tobacco, Egyptian long staple cotton, machinery, and manufactured products.

The annual dollar value of imports and exports at Charleston has quadrupled over the past five years from \$26,000,000 to \$104,000,000. United States Customs collections, a reliable index of expanding import trade, have grown from \$494,000 five years ago to \$3,106,000 last year.

Among latest port developments, Standard Fruit & Steamship Company, the nation's second-largest producer, importer, and distributor of bananas and coconuts, and operators of a fleet of steamships, has just begun operations at Charleston, bringing weekly ship-



South Carolina has long been famed for its outstanding highway system, which has been consistently improved. Much has been rebuilt and new bridges have been added in recent years.

ments of bananas from Ecuador and Haiti. This places Charleston as one of the principal banana ports of the country as it is already an active import point of the United Fruit Company.

Charleston continues as the nation's leading port for importation of long staple Egyptian and Peruvian cotton, the principal export point for textiles from southeastern mills, and a growing gateway to world trade for the vast industrial plants of the Midwest as well as the South.

## RAILROADS

The state is served by three major railroad systems—the Atlantic Coast Line, the Seaboard Air Line and the Southern—and seven smaller lines. Together they operate close to 4,000 miles of track in the state. About four-fifths of this mileage is operated by the three major lines listed above. Practically every community in the state has railroad communication.

All of these lines are working for the fullest development of the territory which their lines traverse through their own very active industrial development departments. These departments are replete with data concerning resources and opportunities, and their field representatives as well as their managing officials extend cooperation constantly to state and local authorities, all working together for increased development.

With modern improvements in equipment and streamlined trains, passenger service has turned a new page in railroad history.

Cities served by the major line include the following: The Southern serves Greenville, Greenwood, Spartanburg, Rock Hill, Columbia City, and Charleston. The Atlantic Coast Line serves Sumter, Florence, Columbia City and Charleston. The Seaboard Air Line serves Sumter, Florence, Columbia City and Charleston.

The seven smaller lines that serve the state are the Clinchfield; Charleston and Western Carolina; Piedmont and Northern; Columbia, Newberry and Laurens; Georgia and Florida; Greenville and Northern, and the Carolina and Northwestern.

## HIGHWAYS

Whoever has driven over the highways of South Carolina during the past few years can confirm the opinion that the state has one of the most modern, technically designed and constructed systems of good roads in the nation. These highways are maintained to high standards and are splendidly marked.

The state did not start its system of paved highway building as early as did some of the other states, but it did set up a highway organization which made long and thorough studies of the best practices of all of the other states so that when the local system was initiated, it would be absolutely up to date. Starting in the late 20's, a program embracing bond issues to pay for the roads and the construction of a system to cover the state was started; and it was carried from that point with celerity during the 30's and by the time that World War II became a reality, the system was complete and ready for whatever demands might be made upon it.

The highway system at present comprises more than 21,000 miles, divided into 12,082 miles of hard surfaced



A diesel powered freight train of the Southern Railway System that "Serves the South."



The Atlantic Coast Line passenger station at Florence was recently improved throughout.



Delta, Eastern, National and Southern Airlines serve Charleston through the modern Municipal Airport.



highways and 8,952 miles of earth types. Every city or town of over 500 population is served by at least one modern state highway.

Concrete and steel bridges of the most modern type span the major streams from the sea to the rugged gorges of the Blue Ridge Mountains. These bridges are of pleasing design, of ample width and of permanent construction.

The state has many dual lane sections of highway, with landscaped parkways dividing opposite lanes of traffic. Most of these highways have, quite naturally been constructed in more recent years, and a good example is the road running to the north out of Charleston, on the stretch between Florence and Darlington, and the link which connects Greenville and Spartanburg.

The State Highway Department was created in 1917 and charged with the responsibility of the construction and maintenance of the state highway system and the administration of motor vehicle licenses, vehicular traffic and driver's license laws.

Under Section 5867, Code of Laws, 1942—Commission consists of 14 members, one from each Judicial Circuit elected by the Legislative Delegation from each circuit for a term of four years.

From July 1949 through June 1950, the major activities of the department included: Construction contracts awarded \$15,885,296; Construction expenditures \$22,-

567,488; Regular maintenance expenditures \$6,059,051; Retreatment expenditures \$2,063,158. Total Federal aid claimed during the period amounted to \$5,571,551.

A total of 618,000 motor vehicle registrations were made in the state in 1951. This figure includes registrations for 495,000 autos and 123,000 trucks and buses, and represents a 6.7 per cent increase over similar registrations in 1950.

## AIRWAYS

South Carolina has excellent air line service and a fine system of airports which satisfactorily meet the present needs of commercial aviation.

Five air lines serve the state. They are: Eastern Air Lines, Delta, Southern Airways, Piedmont and National. Eastern serves Anderson, Greenville, Spartanburg, Rock Hill, Florence, Columbia City and Charleston. Delta provides service for Charleston, Columbia City, Rock Hill, Spartanburg and Greenville. Southern goes into Greenville, Greenwood, Spartanburg, Rock Hill and Charleston. Piedmont serves Rock Hill; and National serves Charleston. (Lines serving Rock Hill land at Charlotte, 25 miles away.)

Increased service for the state and its principal cities has become a reality in recent years, and in addition to the lines mentioned above, several other lines are interested in providing South Carolina's larger cities with both national and international air service.

# EDUCATION AND RESEARCH



Old Main Tower of Furman University at Greenville.

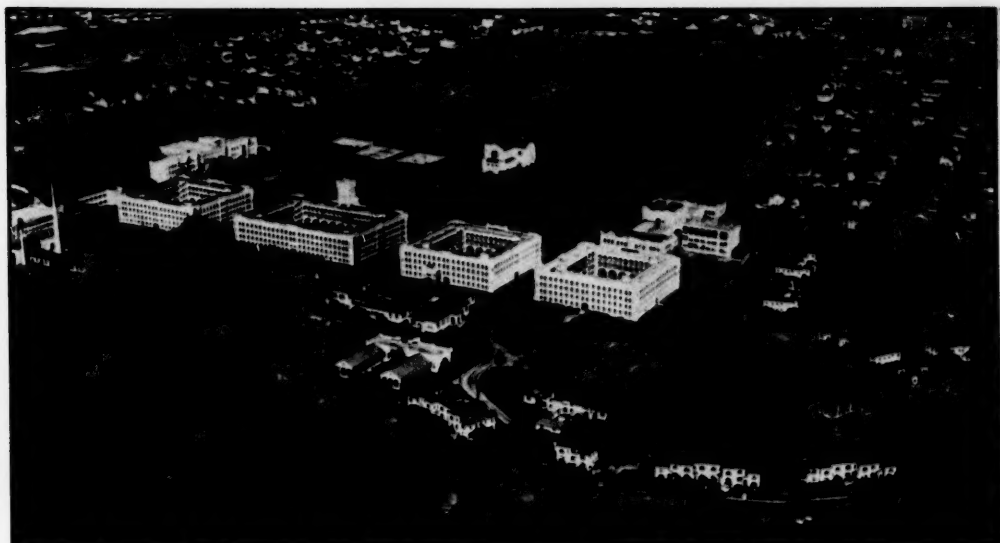
THE public schools in South Carolina are supported by state funds which, in many instances are supplemented by local school districts. The governing body is the State Board of Education, and its present superintendent is Jesse T. Anderson. His term expires in 1955. This board controls all policies.

In the 1949-50 term there were 478,103 students enrolled in the state's public schools. Public School expenditures were running at the rate of \$53,899,000 at that time.

The state provides for the payment of teachers' salaries in the public schools of the state for a nine months' term on the state adopted salary schedule. The number of teachers is determined by the enrollment and average attendance of the current year. The total amount appropriated for teachers' salaries for the session 1950-51 was \$27,645,000. The amount appropriated to pay the cost of transportation for the session 1950-51 was \$2,400,000. The legislature also appropriated funds for the various special services administered by the state department and matching funds for all phases of vocational education and rehabilitation.

It is worthy of note that South Carolina was one of the first states to establish state supported institutions of higher learning. The University of South Carolina was established, or chartered in 1801 and opened in





Campus of The Citadel, the military college of South Carolina at Charleston.

1805 at Columbia. The organization includes the following schools: arts and sciences, commerce and secretarial science, education, engineering, journalism, law, pharmacy and graduate. The University is a co-educational institution.

In the foothills of the Blue Ridge Mountains, in the Northwestern corner of the state, is situated the campus of the Clemson Agricultural College, the A & M College of South Carolina. It is a sprawling campus, its barracks and classroom buildings stretching across hills and hollows without apparent rhyme or reason. But here one finds an institution of higher learning unique among schools of its kind in this country, for the excellence of its educational system and the feeling of brotherhood and unity among its students and alumni outweighs mere architectural disparity.

In 1889 the General Assembly of South Carolina accepted the bequest of Thomas Green Clemson, noted farmer-diplomat of the last century and son-in-law of the famous southern statesman John C. Calhoun, who set aside the bulk of his estate for the establishment of a scientific and technical college. Today Fort Hill, the former home of these two great men, stands in the middle of the campus.

Clemson's will reads in part: "My purpose is to establish an agricultural college which will afford useful information to the farmers and mechanics; therefore, it should afford thorough instruction in agriculture and the natural sciences connected therewith; it should combine . . . physical with intellectual education; and it should be a high seminary of learning in which the graduate of the common schools can . . . finish a course of studies terminating in thorough theoretic and practical instruction in those sciences and arts which bear directly on agriculture . . . the benefits herein sought to be bestowed are intended

to benefit agriculture and the mechanical industries."

That the purpose Clemson intended has been accomplished is evidenced by the high position the college holds among similar institutions in the United States. Since its founding, however, Clemson has become more than an Agricultural College alone; today, the college offers twenty-nine curricula under the Schools of Agriculture, Engineering, Textiles, Arts and Sciences, Chemistry, and Education. Enrollment in the Schools of Agriculture and Engineering is today surpassed by that of the School of Textiles, in which more than twenty per cent of Clemson's students are majoring. With the aid of the textile industry in the state the Textile School has recently undergone a million dollar expansion program which has made it unparalleled in the world for its purpose. Though the college is organized on the university plan of various schools, it retains its entity through the inter-relationship of schools and departments in providing a well-balanced educational program.

In addition to the regular college work at Clemson other services include the Agricultural Extension Service, the Agricultural Experiment Station, Livestock Sanitary Work, Crop Pest Commission, the Board of Fertilizer Control and the Engineering Experiment Station. These services bring the college in close contact with agricultural and industrial enterprises throughout the state.

Total enrollment at Clemson has dropped in the past two years, as veteran students studying under the GI Bill have graduated. At present there are only about 250 veterans in school, and enrollment stands at approximately 2,400.

Clemson is a military college, and its cadets live in barracks under military discipline, although since World War II, participation in the military program

has been optional for veterans of the armed forces. It is one of the top seven military schools in the nation, and both the Army and Air Force maintain ROTC units here. The Army offers six branches of ROTC training: Armor, Infantry, Ordnance, Engineers, Quartermaster, and Signal. The Air Force provides courses in Aircraft Maintenance, Armament and Flight Training.

Fraternities in the social sense of the word are non-existent here. This lack, if lack it is, is compensated for by the strong bond of the cadet uniform.

In civilian life Clemson men have proved themselves leaders. In every field, science, industry, agriculture, and education one will find them directing the economic and social life of our country.

Clemson's military record is outstanding. There were 1,549 Clemson men killed in action. In World War II the figures rose to 6,475 in service with 370 killed. There are roughly 1,500 on active duty at present, with fifteen listed as dead or missing. The highest ranking Marine officer to die in the Korean conflict was Colonel Wesley M. Platt '35. Lieutenant Colonel Aquilla J. Dyess '32, USMC, was awarded the Congressional Medal of Honor posthumously in World War II. Major General Floyd L. Parks, '18, is Chief of Public Information for the Army. Major General Mark E. Bradley, Jr., son of the Clemson Professor and a former student here, is Chief of the Airplane Procurement Bureau and the Industrial Planning Board of Air Materiel Command of the Air Force. Brigadier General Gerson K. Heiss, '16, heads the famed "Operation Roll Up" of the Japan Logistical Command, which made it possible from a supply standpoint for UN Forces to remain in Korea.

Research is a constant thing at Clemson College. It is carried on daily in almost every department of the institution. The Agricultural Experiment Station located at the college makes studies in every phase of agriculture. Under special study recently have been the development of cattle breeding, tobacco raising and curing and the adaptation to South Carolina soil and climate of a new fiber crop called Kenaf, a fast growing substitute for jute, native to India.

Study in the School of Textiles seeks to develop new machinery methods and processes for the industry. The Engineering Experiment Station has made important tests with the use of bamboo as a substitute for steel in reinforced concrete work.

Work along similar lines goes on in all of the technical schools of the college and even in the School of Arts and Sciences where one scholar spends every spare hour in concentrated research on the works of Shakespeare.

Extensive research in cotton fibers is carried on in the laboratories of the American Cotton Manufacturers Institute and the cotton branch of the Production and Marketing Division, U. S. Department of Agriculture, both of which are located in Clemson's textile building.

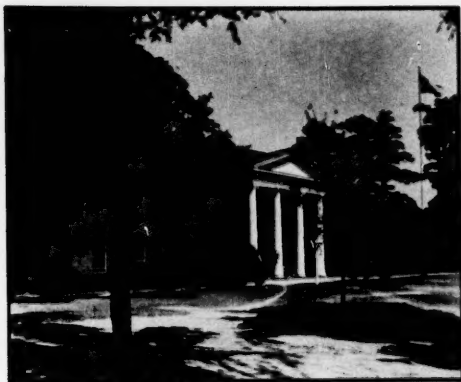
Just a few miles from the college in the Excelsior Finishing Plant of Deering Milliken and Company are located the super-secret laboratories of the Deering Milliken Research Trust. No one from the outside world is permitted beyond the front office. Textile research experiments are carried on in three divisions, mechanical engineering, chemistry and chemical engineering, and physics and electronics. From these laboratories may come a textile revolution such as the most visionary industrialists cannot have foreseen.

The Citadel, The Military College of South Carolina, located in Charleston, is the state's military college. Founded in 1842, it has for 110 years given to the young men of South Carolina the best in military and academic education. The Corps of Cadets of The Citadel originally consisted of less than forty men, but in its more than a century of existence, the Corps has increased to a strength today of 1,200 cadets. Almost all of the states in the United States are represented now in The Citadel's student body, and more than half of the cadets are from outside the State of South Carolina. The Citadel has thus become a truly national college.

The Citadel, an undergraduate college, offers courses leading to bachelors degrees in fourteen major fields of study, including business administration, civil engineering, education, electrical engineering, pre-medicine, pre-dental, and physical education as well as the



Bob Jones University at Greenville, founded only a few years ago has had an outstanding growth record. South Carolina vermiculite, processed by the Zonolite Co., was used in its construction.



Holland Hall at Newberry College, in the town of Newberry.

arts and sciences. Since 1935, more than three million dollars has been spent on the physical plant of the college, and the facilities of The Citadel are among the best in the South.

President of The Citadel is General C. P. Summerall, United States Army, former Chief of Staff of the Army and president of the military college of South Carolina for more than twenty years. Under General Summerall's leadership the college has had a notable expansion and development of its facilities, student body, and faculty, since 1932.

The Citadel for the last thirty years has received the highest possible rating from the Army regarding its military training.

Bob Jones University is this year celebrating its "Silver Session." For the past twenty-five years, its progress has been almost unique in the educational world. In that short time, the enrollment has increased from 135 students the first year, 1927-28, to approximately three thousand matriculated during the present school year. This astounding growth during such a short period of years is only one of the signs of progress on the completely new campus of "The World's Most Unusual University" in Greenville, South Carolina.

Founded in 1927, by Dr. Bob Jones, Sr., the school was first located in College Point, Florida, near Panama City. In 1933, it was moved to a more centralized location in Cleveland, Tennessee, since students were by then coming from all parts of the United States. By 1944, the enrollment had passed the 1,200 mark, and two years later, 2,000 were attending. In the thirteen years the school was located in Cleveland, more than that number of buildings had been added to the old Centenary College campus, but all available space had been exhausted and it seemed impossible to expand further at that location. The board of trustees voted, therefore, on April 4, 1946, to sell the college property, expand into a university, and to develop a completely new campus on a 176 acre site in Greenville, South Carolina. Construction on the first unit of the plant was begun in July, 1946, and was completed within fourteen months, in time for the opening of the 1947-48 school year. The university plant is

now valued in excess of \$7,000,000, and is known as one of the miracles of modern education.

A unique institution, Bob Jones University is interdenominational, co-educational, orthodox, standing without apology for the "old-time religion" and the absolute authority of the Bible. It functions on a three-fold foundation: firm discipline, high cultural and scholastic standards, and evangelistic orthodoxy.

Bob Jones University consists of six schools: The College of Arts and Sciences, the School of Religion, the School of Fine Arts, the School of Education, the School of Commerce, and the School of Aeronautics. It offers to its students a great variety of extra-curricular activities. These include participation in the weekly vesper programs, the University Oratorio Society and Opera Association, the Classic Players, the programs of radio station WMUU, and productions by Unusual Films, as well as the various literary societies and student organizations on the campus.

Winthrop College, located at Rock Hill, is the South Carolina College for Women. It was established in 1886, and today gives courses leading to the A.B. and B.S. degrees in Arts and Sciences, teacher training, home economics and commerce.

The Medical College of South Carolina was established at Charleston in 1824. It did not become a state college until 1913, although it had received state appropriations from time to time.

The Colored Normal, Industrial, Agricultural and Mechanical College was established by the state at Orangeburg in 1896. The college also directs the work of the negro farm and home demonstration agencies and the agricultural, home economics and trade teachers in the public schools. This is an institution of which the state can be justly proud. Its work has been outstanding.

Besides the above mentioned state supported institutions of higher learning, there are twelve white and four negro denominational or private four year colleges. These are, respectively: Coker College of Charleston, Columbia Bible College, Columbia College, Converse, Erskine, Furman University, Lander, Limestone, Newberry, Presbyterian, and Wofford; and Allen, Claflin, Benedict and Morris. Seven Junior Colleges are also located in the state.



New, modern, beautifully equipped building for the School of Chemistry at Clemson College, at Clemson.



South Carolina's beautiful classic-style state capitol building at Columbia.

## FINANCE AND TAXES

**S**OUTH Carolina does not levy a general sales, use, or gross receipts tax. The greatest proportion of tax revenue, which totaled \$103,800,000 in 1951, is obtained from selected sales and gross receipts, and the largest part of this figure, which stood at \$66,100,000 last year, was derived from motor fuel tax. This figure was \$32,068,000. These figures may be compared very favorably with those of 1949 which show total tax revenue of \$101,200,000; selected sales and gross receipts at \$52,931,000; and motor vehicle fuels at \$23,105,000.

Tax receipts from the sale of alcoholic beverages for '51 were \$15,399,000 as compared with \$14,803,000 in '49. The tax on tobacco products brought the state \$5,545,000 in '49 and \$8,097,000 in '51.

The balance of the state's revenue is obtained from license taxes, individual and corporate income taxes, death and gift, and severance taxes. In 1951 license taxes amounted to \$9,300,000; individual income taxes, \$12,000,000; corporation taxes, \$13,600,000; and death and gift, severance, and others, \$1,300,000. Comparable figures for 1949 were: license, \$6,980,000; individual income and corporation combined, \$29,943,000; death and gift, severance and others, \$1,325,000.

State debt for the year stood at \$115,493,000. This

represents an increase over the preceding year that is about the average of the other states of the nation.

### BANKING

There are 150 banks in the state having deposits totaling \$660,000,000 and total assets and liabilities of \$711,000,000. These banks, for the most part, are long established institutions. Their officers and directors are citizens who understand their communities. They have the knowledge that the success of their banks and that of the communities that they serve are a mutual development. These banks stand ready to furnish financial aid and capable advice for the development of sound business.

### INSURANCE

Steady progress has been made by the people of the state in the recognition of the necessity of family security. The amount of life insurance in force in legal reserve companies has increased from \$591,198,228 in 1933 to \$2,283,623,000 in 1950. New life insurance written in the state in 1950 amounted to \$655,548,000. \$148,776,000 of this was ordinary life; \$153,132,000 was group insurance; and \$353,640,000 was industrial.

## RECREATION

AS states go, South Carolina is a rather small package, but in that package is offered an assortment of recreational attractions so varied and interesting that no state of equal size may boast of more.

Indeed, the very fact that the state is small in size has a special appeal, for so varied are South Carolina's scenic attractions that one may literally swim in the ocean after breakfast and square-dance in the mountains that night.

The state's low-country affords the populous east its touch of tropical climate and atmosphere; its beaches give mid-westerners their closest approach to the sea, and its up-country affords Floridians their nearest entry into the mountains.

South Carolina's year-round climate, with few extremes of heat or cold, is ideal for sport, recreation, sight-seeing, entertainment, and just plain living. Its history is among the most interesting of the original 13 colonies, and its land is dotted with battlegrounds of colonial, Revolutionary, and Confederate Wars. Its recent vast industrial and agricultural development, second to none in the country, has added modern tourist attractions to those already there.

Situated across north-south travel lanes to Florida, the state has a system of paved highways reaching into every nook and cranny. With nearly 14,000 miles of hard-surfaced roads, South Carolina can offer tourists ease of traveling which is unexcelled in the nation.

### SCENIC BEAUTY

Perhaps the state's best-known attractions are the nationally-known gardens which, during winter and spring, become the showplaces of the South. Beginning in December and continuing throughout the warmer months, these gardens attract many thousands annually. The early-blooming camellias pass and make way for colorful azaleas. These in turn are replaced by mountain laurel, roses, iris, magnolias and countless other blooms that combine to make one of nature's most colorful extravaganzas.



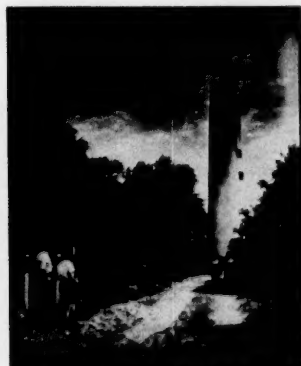
One of the fine old churches at Sumter. There are historic churches throughout the state whose age is measured in centuries.

Among famous low-country gardens are Brookgreen, Magnolia, Middleton, Cypress, Mateeba, Belle Isle, Pierate's Cruze, Harrietta, Runnymede and Mulberry. The better known inland gardens include Edisto, Lamis, Kalmia, Swan Lake and Dunndell. In many cities, such as Columbia, residential areas bloom in magnificent displays in the spring.

South Carolina's mountainous area, in the vicinity of Anderson, Greenville, and Spartanburg offers a particular appeal in the fact that it is largely "unspoiled" and unexplored as far as the average mountain-lover is concerned. For instance, Whitewater Falls, near Walhalla, the highest falls in the South, have just now been made available to the visitor with proper roads. Another Isaqueena Falls, romantic in Indian legend, is largely unknown. Nearby is the route taken by Hernando DeSoto during his perilous explorations in 1540.

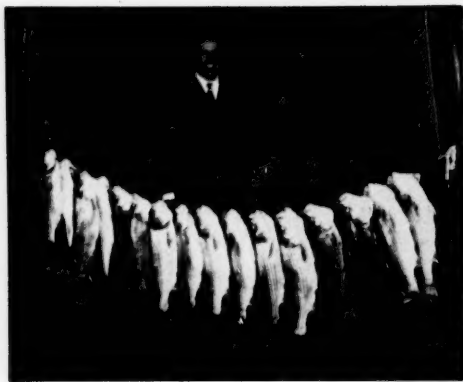


Scene at Poinsett State Park is typical of many such parks in the state.



136 foot lighthouse in historic Hunting Island State Park.





A string of bass, an afternoon's catch in one of the lakes in Berkeley County.

Caesar's Head, a mountain resort since early days, still is a powerful lodestone for visitors, and not far away, in the Greenville vicinity, is Table Rock, tremendous granite outcropping which broods over two beautiful lakes.

A few hours of leisurely driving through rolling countryside brings the traveler into the magically-green pinelands of the South Carolina "fall line," a geographical division which separates up-country from low-country. In this vicinity, especially at Camden and Aiken, winter residents have created fashionable colonies known to society throughout the country.

Below Columbia, the State Capital, the vastly different low-country begins, with its haunting gray Spanish moss, ancient liveoaks and cypresses, and hidden bayous in semi-tropical settings. Along the South Carolina coast, highways pass along tree-shaded avenues little changed since early plantation days.

## HISTORY

Any visitor to the state may almost literally "see" history in South Carolina, for so much visible evidence still remains of the romantic past. One may enjoy



One of the many gardens throughout the low country that attract visitors each year.

tangible reminders of early Spanish and French settlements, of bloody Indian skirmishes, of the indomitable English colonizing, of the Revolution, of wealthy plantation society, and of the Confederate War.

One of America's earliest attempts at settlement was by the Spaniards under D'Allyon at Georgetown in 1526. Others by French and Spanish followed at Beaufort, but the first permanent settlement was by the English at Charleston in 1670. A plantation economy, based on rice and indigo, was flourishing a century before the Revolution. Canny traders pushed upward along the Savannah River into the rich up-country, where pre-revolutionary houses still stand.

## STATE PARKS

Among the most popular recreational facilities in South Carolina is the system of 20 State Parks. From the peaks, valleys, and lakes of the mountains to the broad, sandy Atlantic beaches, the State Parks of South Carolina are so distributed that wherever you are in South Carolina, there is at least one State Park within an hour's driving distance.

To call the roll of the parks is to bring to mind some of the outstanding and historical areas of the Palmetto State:

Aiken State Park is located on land made famous through many periods of the state's development. Indians, Spanish explorers, Whig and Tory battles, and fighting in the War Between the States all played a part in the history of this section.

Barnwell State Park is a picturesque area that is a mecca for many family gatherings. The names Aiken and Barnwell have both figured prominently in our national news recently with the establishment of the giant Atomic Energy Commission installation nearby.

Cheraw State Park, the largest and oldest of all state parks is a good example of the development of sub-marginal sandhill country into an outstanding recreational area.

Chester State Park, located close to a number of industrial communities, is an example of how depleted land can be reforested and made beautiful once more.

Croft State Park, developed on the site of a former Army Camp is especially popular for swimming and picnicking.

Edisto Beach State Park is characterized by tall palmettos that rise majestically above the semi-tropical undergrowth and march down to the ocean's edge. Bones of prehistoric elephants, hoofs of strange 3-toed horses, pieces of Indian pottery and parts of old Spanish guns have all been found on Edisto.

Givhans Ferry State Park is famous for its fishing. The old Charles Town—Savannah Town—Augusta Indian path forded the Edisto River here before a ferry was used. In olden days Indian braves would dive off the high bluffs into the river for small gifts.

Greenwood State Park, located on Greenwood Lake, whose broad expanse of water and irregular shore line help to make the park a place of beauty.

Hunting Island State Park is the only part of South Carolina which has been governed under six flags: Spanish, French, English, the State of South Carolina (during the Revolutionary War), the Confederate



Edisto Gardens at Orangeburg are open to the public all year 'round without charge and are maintained by the city.



The graceful lines of St. Philip's Church viewed through characteristic iron work of Charleston.

States, and the United States. Spaniards, Frenchmen, Negro slaves, American colonials, pirates, Confederates and Northerners have all lived, fought and died here. A lighthouse 136 feet high is one of the features of the park. From its observation platform there is a magnificent view of the historic sea islands up and down the coast.

Kings Mountain State Park is located near Kings Mountain National Park where the Battle of Kings Mountain was fought. This battle, an important Revolutionary engagement, is often called "The Battle of the Colonels" because neither American nor British officers engaged held rank higher than Colonel.

Lee State Park is noted for its picturesque flowing wells which add touches of beauty to the lovely lake and wooded area of the park. Among the historical incidents which occurred in the vicinity of this park were numerous duels, the most famous of which was the Cash-Shannon affair in 1880.

Myrtle Beach State Park has a half mile of ocean frontage on one of the widest and smoothest beaches along the Atlantic Coast. A 644-foot fishing pier, recently constructed, has proved to be a popular addition to the facilities at this park.

Oconee State Park is a picturesque restful retreat located in the mountains of northwestern South Carolina.

Paris Mountain State Park serves the people of the largest textile center in the state, and each year thousands of city-weary and factory-tired people flock to the cool woods and lakes of Paris Mountain. The park gets its name from Richard Pearis, the first white settler in this area. Pearis owned all the land on which the city of Greenville was built, and many acres besides. Pearis became a Tory officer during the Revolutionary War and was later exiled to a West Indian island. Now, of all the localities where Pearis lived,

Paris Mountain alone bears his name, though with a different spelling.

Poinsett State Park was named for Joel Roberts Poinsett, naturalist, traveler, statesman and educator, who was born in South Carolina. The popular Christmas flower, the poinsettia was introduced by him from Mexico and was named for him. The combination of mountains and swamp vegetation, along with the interesting geological formations makes Poinsett extremely interesting to nature lovers and students.

Rivers Bridge Confederate Memorial State Park marks the site of the Salkehatchie River crossing by Union troops. Here a handful of Confederate soldiers fought a delaying action against Sherman during his famous "march to the sea."

Santee State Park is located on the shores of huge Lake Marion of the Santee-Cooper impoundment. Fishing, picnicking, swimming and boating are the most popular activities at this park. Nearby is the Fort Watson Memorial, one of the most accessible and least known Revolutionary battlegrounds in South Carolina. A large Indian mound built by the Siouan tribe of Santee Indians figured prominently in the battle between British troops and American colonials under the leadership of General Francis Marion, South Carolina's famous "Swamp Fox."

Sesqui-Centennial State Park was established in 1936 as a result of the celebration of the 150th anniversary of the city of Columbia. Money obtained from the sale of Sesqui-Centennial coins was used to purchase the land for the park. Picnicking, swimming and boating attract thousands of visitors to this park.

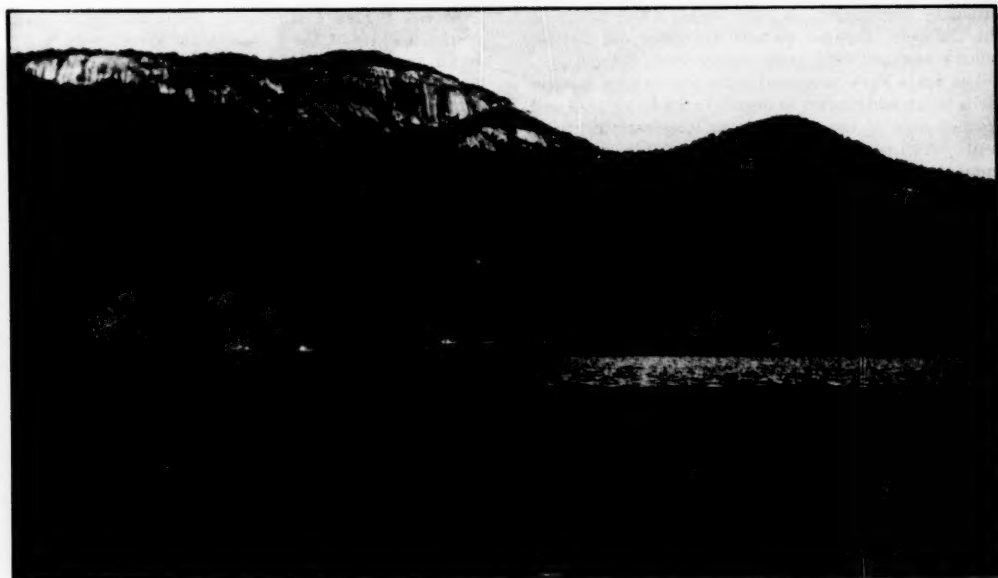
Table Rock State Park is outstanding for its scenic beauty. The three high peaks with bare rocks breaking gray through a covering of green have been famed for their beauty for more than a hundred years. Legend has it that a gigantic Indian chieftan dined at the table,



Fox hunting is a great South Carolina sport. This photo was taken near Sumter.



On the beach at the lake in Berkeley County, a popular spot in winter and summer.



The scenic beauty of Table Rock State Park attracts thousands of visitors each year.

thousands of feet above ordinary mortals.

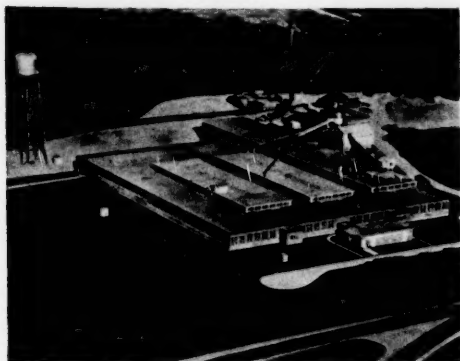
Little Pee Dee State Park is being developed at the present time on the Dillon-Marion County line to more adequately serve the Pee Dee area of the state with State Park facilities.

Pleasant Ridge State Park is the newest state park developed for the use of the colored citizens of the state. This park is being developed in the mountains of Greenville County. Other State Park areas for colored are located at Hunting Island State Park, Campbell's Pond (near Cheraw State Park), and Mill Creek (near Poinsett State Park). At the present time negotiations are underway for the acquisition of an area along the coast in the vicinity of Charleston for development as another State Park for colored.

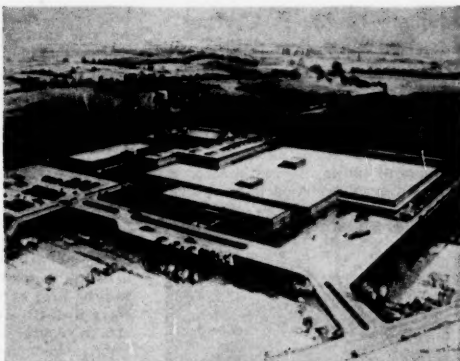
The popularity of South Carolina's State Parks is evidenced by the fact that during the year ending June 30, 1951 more than 2½ million visitors used the state park facilities. This attendance shattered all previous attendance figures. The oft-repeated slogan of "Visit Your State Parks" has been heeded and the consistent repeat visits of park users gives evidence that the public has come to accept and enjoy State Parks as areas where every member of the family can enjoy healthful, wholesome recreation in pleasant, natural surroundings.

The most popular activity throughout the park system is the use of picnic facilities. For picnickers the parks offer every convenience in the way of drinking fountains, picnic shelters, tables, and fireplaces. Seven state parks offer family vacation cabins fully equipped with modern conveniences. Large camps for organized groups are also available. Other recreational facilities include swimming, boating and fishing, nature trails, bridle paths, barbecue pits, recreation buildings, tea rooms, and refreshment stands.

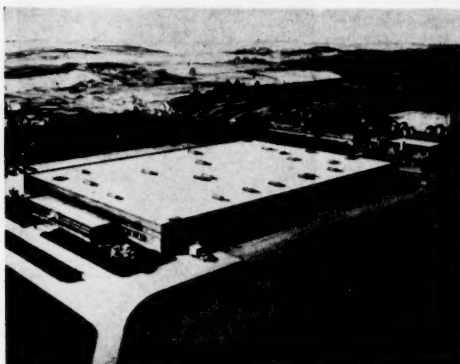
## IN SOUTH CAROLINA...



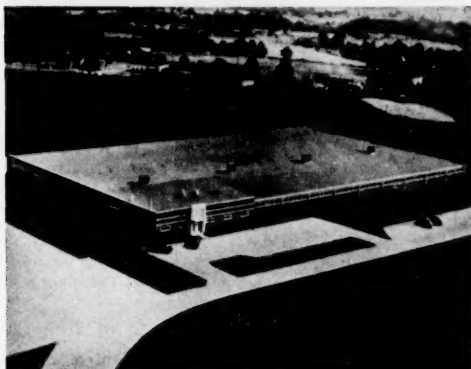
UNITED STATES PLYWOOD CORPORATION (S.C.)  
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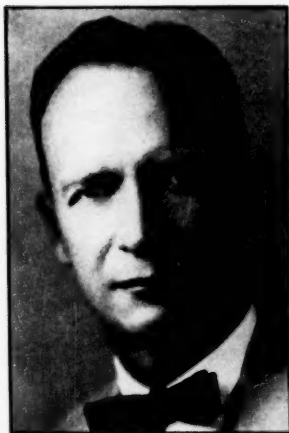
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# SOUTHERNERS AT WORK

## Southern Names F. C. Toal Assistant Vice President

Richard W. Wirt, assistant vice-president of the Southern Railway System in charge of industrial and agricultural development, with headquarters at Washington, D. C., retired on March 1 after 54 years of railway service according to E. R. Oliver, Vice-President in charge of Traffic of the railway. Mr. Wirt is succeeded by F. Clifton Toal, formerly gen-



F. C. Toal

eral industrial agent of the railway at Charlotte, N. C.

William R. Belfield, assistant general freight agent at Columbia, S. C., has been promoted to general industrial agent at Charlotte, succeeding Mr. Toal.

Mr. Wirt, a native of Alexandria, Va., was born February 2, 1882. He attended the public schools of Alexandria and received his higher education at Georgetown University. Entering the service of the Southern in August, 1897, as a clerk at Washington, D. C., he later held positions as chief clerk to the assistant to president, general traveling freight agent, chief clerk to freight traffic manager, and as a conveyancer.

In December, 1920, he was promoted to freight traffic representative at New York, serving later as district freight agent at Philadelphia and as division freight agent at Charlotte, N. C.

He was appointed assistant freight traffic manager at Jacksonville, Fla., in January, 1931. In 1937 he was promoted to assistant vice-president at Washington.

Mr. Toal joined the Southern at Columbia, S. C., in 1922, and held various clerical and secretarial positions at Columbia, Greensboro, N. C., and Washing-

ton, D. C., until September, 1930, when he was furloughed to the Chesapeake Steamship Company as traffic representative at Winston-Salem, N. C.

Returning to the Southern in January, 1936, he was appointed merchandising agent at Atlanta, Ga., and in July, 1937, he was promoted to freight traffic representative at that point, advancing to commercial agent in September of the same year.

In May, 1939, he was promoted to general agent at Cleveland, Ohio, and returned to Atlanta in February, 1940, as assistant general freight agent, the position he held at the time he entered the Navy in 1941. He returned to the Southern as general industrial agent at Charlotte in January, 1946.

Mr. Belfield first entered the service of the Southern in June, 1926, as a stenographer in the Office of the General Passenger Agent at Washington.

In June, 1937, Mr. Belfield was promoted to secretary to the vice-president in charge of traffic, subsequently advancing to chief clerk to the assistant vice-president in October, 1938. He was promoted to freight traffic representative at Atlanta in August, 1939, and returned to Washington as commercial agent in July, 1941.

In January, 1945, he was made division freight agent at Augusta, Ga., where he was promoted to assistant general freight agent in September, 1945. He became assistant general freight agent at Columbia in January, 1946.

## Central of Georgia Assigns W. E. Dillard New Duties

W. E. Dillard, General Superintendent of the Central of Georgia Railway Company, has been designated by the Executive Committee to carry on the duties heretofore performed by the late R. R. Cummins, who was Vice President and General Manager of the Central, and such duties as are prescribed by the President of the Company.

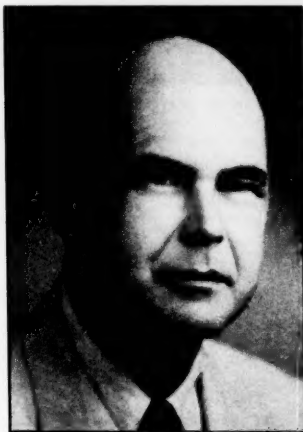
The offices of the General Superintendent will be located at 233 West Broad Street, Savannah.

## W. J. Clapp, President of Florida Power Corporation

Up through the ranks to the presidency of Florida Power Corporation rose W. J. "Bill" Clapp, who was named to fill the top post at the Florida utility early this year. This was the first time in the company's 53-year history that a president has come up from the ranks.

In his 27 years with the company and its predecessors, Clapp has run the

gamut of engineering and administrative jobs. Starting as commercial engineer in 1925, (after receiving his electrical engineering degree from Clemson College '23), he progressed through the years to division engineer, division manager, and general superintendent of Florida Public Service Company. (This sister company of Florida Power Corporation served the central part of Florida while FPC served the West Coast and Northern areas. In 1944 the two companies merged and now make up the 31-county



W. J. Clapp

Florida Power Corporation system which also operates a wholly-owned subsidiary, Georgia Power and Light Company, serving 21 South Georgia counties. All three companies were owned by General Gas and Electric Corporation which in turn was owned by Associated Gas and Electric Company, part of the ill-fated Hopson empire. Florida Power Corporation is now investor owned.)

Called to active duty in 1943 with the Army's Corps of Engineers, Major Clapp served in the European Theatre of Operations on the utility section of General Eisenhower's staff.

Upon returning from the war in 1946, Clapp was named production engineer for the entire Florida Power Corporation system. In June, 1947, he became production superintendent. Three years later he was named vice president in charge of operating departments and in June, 1951, he became executive vice president.

As president of Florida Power, serving one of the nation's fastest growing areas, Clapp is faced with two major problems. One of these is to improve his company's earnings, which have dropped steadily in recent months, and to com-

(Continued on page 112)





## Defense is on the lines!

### "LONG DISTANCE, PLEASE!"

Seems that's what everyone is saying these days — in factories, offices, army camps and navy yards . . . on farms, in homes, in shipyards and arsenals.

For America is doing a big job in a hurry. To speed things up and get work done, the nation depends on Long Distance. So, it's "full speed ahead" for thousands of telephone men and women, too.

They're putting through four times as many Long Distance calls and twice

as many teletypewriter messages as in 1940. Millions of miles of Long Distance pathways have been added — in wires, in cables, and by radio-relay.

Even that is not enough. More of everything is being built as fast as we can get materials.

For America's defense is on the lines, and telephone people are getting the message through.

YOUR LONG DISTANCE CALL  
WILL GO THROUGH FASTER,  
IF YOU CALL BY NUMBER.



BELL TELEPHONE SYSTEM

# Southerners

(Continued from page 110)

plete the company's big expansion program.

Today Florida Power's generating capability is 242,100 kilowatts, which represents an increase of over 100 per cent above the 1945 capability.

By late 1954, Florida Power Corporation's system will have a total capability of 439,300 kw through the expansion program now underway.

## New Orleans Pub. Service Names Guillory Director of Advertising

The resignation of W. J. Amoss, vice-president in charge of advertising for New Orleans Public Service, Inc., and the appointment of J. Mason Guillory to succeed him as director of advertising was announced recently by George S. Dinwiddie, NOPSI president.

Amoss, who has been with the utility since 1931, is resigning to become execu-

trial and Commercial Division of the company's Industrial Engineering and Utilization Department, which has the responsibility of advising customers on all uses of services provided by the company. Guillory was educated in New Orleans public schools, and at Tulane University, where he graduated in engineering in 1928.

Following Guillory's promotion to director of advertising, three personnel changes were announced in the Industrial Engineering and Utilization Department at Public Service.

John F. Morton, formerly supervisor in the Industrial Division, has been promoted to manager of that division.

James L. Campbell has been named manager of the Commercial Division, and Charles J. Sinnott has been promoted to manager of the Residential Division succeeding Campbell.

Due to the increase in size and importance of New Orleans' commercial and industrial operations, the work of the Industrial and Commercial Division which was headed by Guillory has been assigned to two separate units.

## J. H. Everbach to Head Kentucky Travel Council

The creation of a Tourist and Travel Council as a new division of the Kentucky Chamber of Commerce, was announced recently by David F. Cocks, Vice President of the State Chamber and Chairman of the newly formed bureau.

Jack H. Everbach, Louisville, has joined the staff as Director of the new department. Long associated with the radio industry as an announcer and in radio sales work at Louisville, Mobile, Ala., and Winston-Salem, N. C., Everbach will direct the State Chamber's expanded tourist program. A native of Louisville, he has been associated with Radio Station WKLO for the past three and one half years.

"The Tourist and Travel Council was created," Cocks said, "to place greater emphasis upon, and lend greater impetus to, the tourist promotional efforts of the Chamber. It will undertake to activate a greatly expanded program and will serve as a clearing house and coordinating agency for the entire tourist industry and other organizations working in the interests of tourist promotion in the Commonwealth."

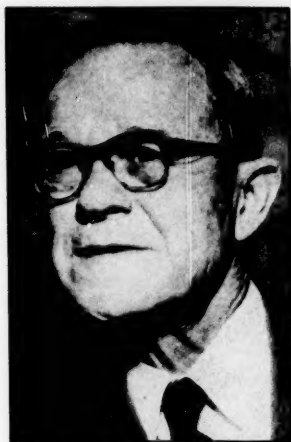
## Wirebound Box Manufacturers Name J. A. Sowell, President

Joseph A. Sowell of the T. R. Miller Mill Co., Brewton, Alabama, a participant in the wirebound shipping container industry for 27 years, was elected president of the Wirebound Box Manufacturers Association at its annual meeting at the St. Francis Hotel, San Francisco. He succeeds A. L. Whiton of Chicago.

Sowell joined the T. R. Miller Mill Co. at Brewton in 1925 and became identified

with the W.B.M.A. the same year. He has been an active participant in the association's programs since then and has served on many important committees.

He was elected president by the Board of Directors, who were elected by the



J. A. Sowell

members of the W.B.M.A. Jasper A. Cragwall of Kansas City, Warren F. Myers of San Francisco, Foster L. Martin of Clarksburg, W. Va., Jess A. McGill of Paris, Texas, and George H. Kubes of Cleveland were newly elected to the Board. Directors reelected are Whiton, J. B. Adkins of Gainesville, Fla., E. S. Barnhill of Indianapolis, L. O. Crosby, Jr., of Picayune, Miss., F. J. Martin, Jr., of Toledo, R. F. Miles of Chicago, John R. Miller, Jr., of Brewton, Ala., Shelley Schuster of New Orleans, and D. R. Simmons of Bainbridge, Ga.

## Southwest Research Institute Appoints Dr. Judson Swearingen

Dr. Judson Swearingen, nationally known for his work in uranium plant construction during the war, has been named Director of Petroleum Technology for Southwest Research Institute, Dr. Harold Vagtborg, Institute president, announced recently.

A veteran member of the staff of the internationally known scientific research organization, Dr. Swearingen has been the institute's chairman of chemical engineering and one of its key scientists and engineers almost since it was founded in September, 1947.

Prior to joining the staff, Dr. Swearingen, who serves also as technical advisor to the nonprofit industrial research laboratory, was a consulting chemical engineer in New York City. After the war, he conducted scientific investigations in Czechoslovakia and Germany.



J. F. Morton



J. M. Guillory



J. L. Campbell



C. J. Sinnott

tive vice-president of Valentine Sugars, Valentine Plantations, Inc., and the Valite Corporation, a Louisiana company engaged in research and the manufacture of plastics and paper pulp from agricultural products. Will J. Gibbens, Jr., president of these companies, is a director of New Orleans Public Service, Inc.

Guillory also has been with Public Service since 1931, serving in various engineering and sales positions. In 1940 he was appointed manager of the Indus-

# TEXTILES

**Pride of the Piedmont  
in South Carolina!**

Utica and Mohawk Cotton Mills  
Utica-Mohawk Plant  
Division of J. P. Stevens & Co., Inc.  
Clemson, South Carolina  
Largest Textile Plant Under One  
Roof in the World



Concentrated in the textile industrial area served by THE GREENVILLE NEWS and the GREENVILLE PIEDMONT are many of the great names in the industry — Deering-Milliken, Greenwood Mills, Reeves Bros., J. P. Stevens & Co., Inc., Abney Mills, Kendall Co., Woodside Cotton Mills, Ely Walker & Co., Cone Mills, Textron-Southern, M. Lowenstein, Pacific Mills, and a host of

others. Their success here is attracting other scores of large and small plants whose products range from garments to glassware—and from food products to furniture.

Yes, textiles are the Pride of the Piedmont in South Carolina. In the trade area served by these newspapers live 484,184 people—energetic, intelligent, and cooperative folks whose industry will bring success to the operation of any sound business enterprise.

*Serving the Textile-Industrial Piedmont Area  
with a Daily Circulation of 95,974.*

**Greenville News**

MORNING and SUNDAY

**GREENVILLE PIEDMONT**

EVENING

Represented Nationally by WARD GRIFFITH COMPANY, INC.

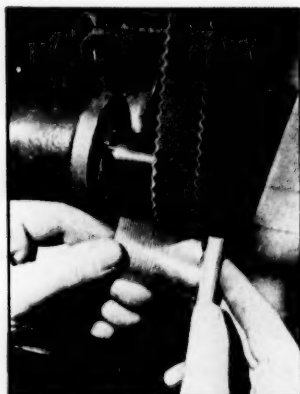
Owners of WFBC NBC 5000 watts

# NEW PRODUCTS

## New Grinding Belt

**Minnesota Mining and Manufacturing Co., St. Paul, Minn.**—A serrated-edge grinding belt, claimed by the manufacturer to be the first major innovation in abrasive belt design in over twenty years.

Introduced as the "scallop-Edge" abrasive belt, it is designed for automatic precision



"3M" Abrasive Belt

grinding and finishing of jet turbine and compressor blades in a single operation, and is described as a solution to a bottleneck in jet aircraft production.

It is also expected to find wide application in the metalworking industry—in the manufacture of hand tools, cutlery and other operations involving small-radius grinding and filing that has been done by hand.

## Drill Bushing

**Texas Engineering and Manufacturing Co., Inc., Dallas, Tex.**—A special drill bushing for elongating holes and for drilling slotted holes. While conceived as an aid to setting tooling on lugs, the new tool is also proving valuable in other applications where elongated or slotted holes are required, according to the manufacturer.

The tool consists of a half round bushing which attaches to the drill and forces it over in the direction required. The bushing is made of tool steel and can be made for whatever size hole is required.

## Recessed Drawer Pull

**Standard Pressed Steel Co., Jenkintown, Pa.**—A new recessed drawer pull for units in its hollowall line of shop equipment.

A rectangular inset, pressed into the face of the drawer, the new pull permits an attractive, modern looking flush front, promotes safety in shop and office, and allows an easy four finger grip, according to the manufacturer.

## Trail-Skid

**Phillips Mine & Mill Supply Co., 2227 Jane St., Pittsburgh 3, Pa.**—The Phillips trail-skid, a two-wheeled trailer primarily designed to handle long lengths of materials in confined spaces. Pulled by either fork or platform truck, this unit is also adaptable for transporting multiple palletized loads for general plant hauling.

The trail-skid is said to be particularly outstanding for its ability to maneuver long lengths of materials in areas where minimum width intersecting aisles are involved. For example, a load 24 feet long can be made to make a 90 degree turn in intersecting aisles as narrow as 14 feet 4 inches.

## Vinyl Primer

**U. S. Stoneware Co., Akron, Ohio**—A new vinyl primer, Tygorust, specifically developed for use on rusted steel surfaces without the necessity for previous preparation.

So new and unique according to the manufacturer, that some of its ingredients have just become available. Tygorust is easily applied by brushing, spraying, or dipping; dries hard and can be overcoated in a matter of minutes; adheres tenaciously to rusted steel, damp or dry; and, can be used with any type of finish coating — particularly vinyls.

Under exaggerated test conditions, it has been brushed and sprayed on damp rusted panels, and also brushed on dripping wet rusted panels, with completely satisfactory results. Dry, rusted steel has been success-

fully primed without even wire-brushing. For maximum results, of course, the surface must be free of grease and oil and loose scale should be removed.

Despite the fact that this product is fast drying, it is said that it can be applied to old, oxidized paint films (bituminous coatings excepted) without lifting or bleeding and can be safely overcoated with vinyl, nitro-cellulose, alkyd and oil based finishes.

## Crane Cab Cooler

**Dravo Corporation, Pittsburgh, Pa.**—A new split type crane cab cooler has been added to the company's line of crane cab conditioning and ventilating equipment.

The new model is designed to maintain a temperature of 80 to 85 degrees F within the crane cab when the surrounding ambient temperatures reach 130 degrees. The unit, which supplies continuous ventilation, is equipped with electric strip heaters for winter heating, dust and dirt filters and activated carbon canisters for fume and odor removal.

Operation and control for summer and winter temperatures is fully automatic.

## Protective Wrapping

**Cadillac Products, Inc., 2300 Gainsboro, Ferndale, Mich.**—An improved cushion-type,



Cadwrap

patented wrapping for protecting large or oddly formed parts or products from in-transit and storage damage. It is being marketed under the name Cadwrap.

It consists of sheets of heavy, tough, crepe paper between which are fastened cushioning layers of excelsior. The integral wrapping is then tailored to fit each part or product and is usually held in place by another patented device known as Cadclips which are said to permit easy nesting and handling of oddly formed parts.

## Guillotine Hydraulic Cutter

**Manco Manufacturing Company of Bradley, Illinois**—A new Model 200-A Guillotine Hydraulic Cutter. Only 12 lbs. in weight and 21 inches long. Model 200-A cuts up to 1/2-inch reinforcing rod with ease. Primarily designed to replace larger, more cumbersome bolt cutters, manufacturer claims new model's comparable lightness in weight and improved handling characteristics will result in faster production and less operator fatigue.

Features highlighting the new Manco Model 200-A are a pressure of 8500 lbs. per square inch, exerting 10 tons thrust in a

(Continued on page 116)

**YOUR ECONOMICAL RELIABLE SOURCE OF SUPPLY FOR QUALITY METALS SINCE 1907**




**HYMAN VIENER & SONS**

SMELTERS • REFINERS  
MANUFACTURERS  
P. O. BOX 573 • RICHMOND, VA

Write a/e Dept. ME Today.

**ALUMINUM • BABBITTS • BRASS & BRONZE INGOTS • PIG LEAD • COPPER ALLOYS • SOLDER • TYPE • ZINC**



Friendly toward industry, South Carolina's Government believes that the operation of a business and the right of individual endeavor is the basis of prosperity.

South Carolina's workers, too, want industry. They appreciate invested capital, competent management and opportunities for productive employment. South Carolina workers are native born, proud and ambitious. They deliver an honest day's work for a good day's pay. Come to South Carolina where everybody supports industry.

Locate your plant with these eight advantages:

- Happier, more productive workers*
- \*Cooperative State and Local Government*
- Nearness to markets*
- Gentle climate*
- Wealth of natural resources*
- Abundance of water and power*
- Splendid transportation (land, sea, air)*
- Low cost site and construction costs*

*Your inquiry will be handled in strictest confidence. Write, wire or telephone (LD 94) now.*

**Charles N. Plowden, Director**  
Research, Planning and Development  
Board  
Dept. AW11  
Columbia, South Carolina

**South  
Carolina**





# NEW PRODUCTS

(Continued from page 114)

hand operated unit. Also important is a newly designed dual ratio pump which combines rapid traverse with high power to minimize cutting time. Manco engineers state that reduced operator effort minimizes the tendency of the operator to twist unit while cutting, this twist motion being the major cause of bolt cutter blade breakage.

## Volt Ammeter

**Pyramid Instrument Corporation, Lynbrook, New York**—The latest model to be added to the line of Amprobe snap-around volt-ammeters is the Amprobe "600."

Model "600" combines the six ammeter

ranges and three volt-meter ranges in one pocket-size instrument. 0-15/30/60/150/300/600 amps A.C. and 0-150/300/600 volts A.C.

Like its predecessors, the Amprobe "600" measures current instantly without need of interrupting the circuit or shutting down equipment.

Six important engineering and design advancements are incorporated in the Amprobe "600": Exclusive doughnut-type transformer eliminates for all practical purposes the factor of error due to position of conductor within probe jaws. 9-range fingertip selection. Voltage test lead plug is automatically insulated by snap-out sleeve when removed from meter. Probe jaws completely insulated. High-visibility no-rim window.

## Semi-Portable Oxygen Generator

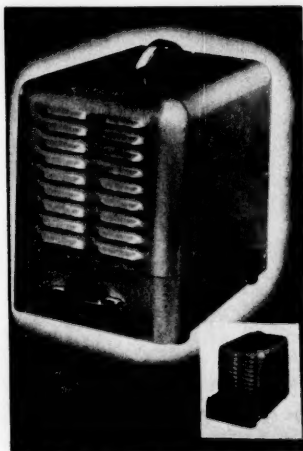
**Joy Manufacturing Company, Pittsburgh, Pa.**—A semi-portable oxygen generator that will enable industrial users to produce their own high purity oxygen at reported savings up to 50 per cent.

The generator is a compact unit requiring a space of 600 cubic feet (8 by 7½ by 10 feet). Simplicity is its keynote and it has a minimum of moving parts. The machine has no dependence on chemicals and nothing is consumed except air and power. Models are contemplated by Joy in the size range from 0.5 to 12 tons daily capacity of oxygen of 99.5% purity.

Heart of the Joy oxygen generator is a series of automatic reversing heat exchangers which eliminate the expense of chemical purification of the air and contribute to high efficiency.

## Dehumidifier

**Fresh'nd Aire Co., a division of Cory Corporation, Chicago, Ill.**—A new portable electric humidifier which is known as the Fresh'nd Aire model 750. It will be added to the current line of the firm's fans and heaters and will be available for delivery to



Electric Portable Dehumidifier

distributors and dealers throughout the United States in the immediate future.

The unit is a striking departure from conventional electric dehumidifiers now on the market, according to the manufacturer. Although it guarantees performance equal or superior to all competitive models of this capacity, it is designed so as to take much less space than conventional models now available. Overall dimensions are only 17 inches high by 12 inches wide by 18 inches long.

It weighs 58 pounds and is designed with a handle to facilitate easy movement from place to place.

## Staking Press

**Winter Products, Inc., Bridgeport, Conn.**—An improved version of the Winter Staking press, designated model RR-6B, with new

(Continued on page 118)





**50 YEARS OF SERVICE  
TO  
SOUTHERN INDUSTRY  
1902 — 1952**

**COLUMBIA SUPPLY COMPANY  
AND ASSOCIATES  
Columbia, S. C.**

*Locate Your New Plant in*

# **BERKELEY COUNTY**

*Where Industry Can Grow!*



**Check  
these  
Advantages:**

- **Power**
- **Water**
- **Labor**
- **Transportation**
- **Climate**
- **Raw Materials**

Today, industry needs room to grow. Expansion is the watchword.

Moncks Corner, Bonneau and St. Stephen, offer not only elbow room, but all the facilities that are necessary for increased production, at lower cost, no matter what limit you may set.

Billions of gallons of water flow through this county every day. Santee-Cooper, operated by South Carolina Public Service Authority offers you ample electric power at lowest rates. Main line, double-track Atlantic Coast Line Railway and Highways 17-A and 52, running north and south, give you access to markets and raw materials. Only 30 miles to deep-water ports.

Native-born, intelligent labor in great supply, is quickly adapted to high skills in industry. Mild climate and low factory site costs reduce overhead.

Rich in agriculture, with the state's greatest timber reserves as well as many dormant minerals in close proximity.

## **IN THE HEART OF THE FINEST FISHING AND HUNTING COUNTRY**

Your play is near your work if you locate your plant in one of these communities. Large lakes and rivers, ocean beaches, fine old plantation homes and world-famous azalea and camellia gardens, rich in the traditions of the South.

*Write Today for Further Details:*

## **Berkeley County Industrial Board**

**Moncks Corner, South Carolina**

*or either of these organizations:*

Moncks Corner Chamber of Commerce  
Moncks Corner, S. C.

Town of Moncks Corner,  
Moncks Corner, S. C.

Town of Bonneau  
Bonneau, S. C.

Chamber of Commerce  
St. Stephen, S. C.

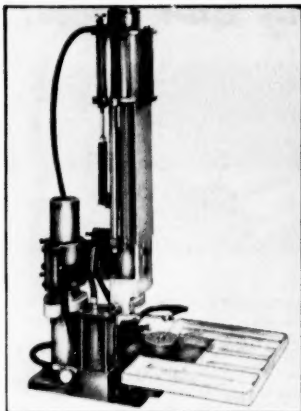
Town of Saint Stephen,  
Saint Stephen, S. C.

# NEW PRODUCTS

(Continued from page 116)

features permitting a 50% increase in operating speed.

It is capable of 100 or more strokes per minute, and has a built-in quick exhaust valve and a simplified air-ejection system to remove work automatically from the lower die. Like earlier models it is bench mounted



**Winter Staking Press**

for light staking, forming and other secondary work in which speed and precision and low fatigue are important.

It is capable of delivering an accurately controlled impact from 0 to 1200 pounds, or a squeeze up to 12-times air line pressure. The stroke may be set for one or two inches. The two-hand safety control is featured for operator protection.

## Special Drilling Unit

**Black Drill Co., Inc., 1400 E. 222nd. St., Cleveland, Ohio**—A new drilling unit suited to a much wider than ordinary range of

work. It is said to combine all the well known features of the standard transversing motor shaft type Black unit with a 4 inch working travel and a skip stroke attachment, making it suitable for deep drilling, drilling in hard-to-get-at locations, and accurate drilling in materials requiring frequent chip clearing.

The unit is designed to operate in any position. Air feed provides rapid shockless advance to the work. Hydraulic control provides uniform drill feed even when breaking through. Micrometer stop insures depth accuracy to .001. It is made in  $\frac{1}{4}$  to 5 h.p. sizes.

## Compression Testing Machine

**Labquip Corp., 4520 W. North Ave., Chicago 39, Ill.**—Accurate compression and crushing tests can be made quickly and easily with a low cost, light weight, portable hydraulic compression machine which, according to the manufacturer, has been proved to be the ideal testing apparatus for many types of small parts. It has been used with excellent results on metal, ceramic, wood and plastic parts, it is claimed, as well as on paper boxes and other containers and on soils springs and similar materials.

The machine can be employed on inspection lines and in industrial laboratories and is an adaptation to industrial use of the apparatus widely used in the engineering soil testing field by government and military testing laboratories, colleges and universities commercial and research testing laboratories in this country and abroad.

## Truck Power Take-Off

**Mobile Power Inc., Detroit, Mich.**—Tangen power drive, a power take-off unit which can be readily installed in trucks which have standard transmission units as an integral part of the transmission and make available 97 per cent of the engine power for auxiliary power purposes. It can be easily removed from one transmission and installed in another.

Power is transmitted through the main gear drive in the transmission but the installation in no way affects the standard driving mechanism. Power is available whether the vehicle is in motion or stationary. Governor control permits operating the vehicle

at desired rate of speed while maintaining rpm required in the power drive shaft to give desired power output.

It can be applied to trucks for operating arc welders, pumps, compressors, cement mixers, saws and other power tools.

## Portable Gas Cutting Machine

**Air Reduction Sales Co., a division of Air Reduction Co., Inc., 60 East 32nd. St., New York 17, N. Y.**—The Airco #20 Radiograph, the latest addition to Airco's famous line of gas cutting machines. It is said to be the first machine of its type specifically designed to be used as a traveling carriage for mounting such equipment as the Aircomatic R machine and the Heliweld machine holder in addition to fulfilling the requirement of a portable, motor driven, straight track-guided cutting machine.

All controls are conveniently located for easy operation. Any speed within the operating range (2-60 ipm) can be quickly and accurately set and maintained.

## Heavy Duty Load-Veyor

**Market Forge Co., Materials Handling Division, Everett, Mass.**—Extra light, high capacity Market Forge Load-Veyor designed to handle heavy loads. This 20 inch wide machine is made in five foot and ten foot sections with 45 degree and 90 degree curves to suit special individual needs.

Extra strength and durability is provided by use of tension members without the addition of unnecessary weight. The weight



**Market Forge Load-Veyor**

of a ten foot section is only 69 pounds. The standard is with the wheels set above the side channels.

The Load-Veyors are rated to take loads of 1000 pounds covering the surface of the conveyor and for individual loads up to 300 pounds per unit.

(Continued on page 120)

# PLYWOODS-PLASTICS CORPORATION

HAMPTON, SOUTH CAROLINA

Subsidiary of

WESTINGHOUSE ELECTRIC CORPORATION

Manufacturers of **MICARTA** — The Industrial Plastic

SHEETS • RODS • TUBES • SPECIAL SHAPES

Decorative MICARTA distributed exclusively by U. S. PLYWOOD CORPORATION

SHIP VIA

CHARLESTON

LEADING SEAPORT OF  
THE SOUTH ATLANTIC



*One of Charleston's State terminal facilities*

One of South Carolina's greatest magnets for industry is the world port of Charleston, with one of the nation's finest natural harbors, extensive modern shipping terminals, and frequent steamship sailings to all major domestic and foreign ports. Here there are no long expensive hauls to and from distant seaports for your raw material requirements and for the export of your finished products. Charleston lies close at hand to serve industry locating in South Carolina with favorable water rates, rapid mechanized handling of cargo at up-to-date piers, and all the avenues to world markets a

modern port offers. Industry shipping through Charleston enjoys the advantage of a port operated by an agency of the State of South Carolina, a non-profit public body, pledged to a program of development based on personalized service. As such it offers its organization and facilities to help you in your plans to locate in South Carolina where industry is served by the South Atlantic's leading seaport.

*Your inquiries receive immediate confidential attention at any of the offices listed below.*

**SOUTH CAROLINA STATE  
PORTS AUTHORITY**



**CENTRAL OFFICE: 1 VENDUE RANGE, CHARLESTON, S. C.  
Tel. 3-7261**

**New York:**  
52 Broadway  
Tel. WH 4-2575

**Chicago:**  
327 S. LaSalle  
Tel. WE 9-5815

**Washington:**  
926 DuPont Circle  
Tel. MU 8105

**Rock Hill, S. C.:**  
216 E. Black St.  
Tel. 4369

# NEW PRODUCTS

(Continued from page 118)

## Gas Driven Arc Welder

**Hobart Brothers Co., Troy, Ohio**—A gasoline engine driven arc welder with the control panel conveniently mounted on the end of the unit at the generator end. This panel has been moved from the side to the end to centrally locate all controls for easier adjustment of the welding heat. On it are located the generator controls, meters, welding and ground cable terminals, polarity switch, ignition switch, starter button, oil pressure gauge and battery ammeter, as well as the receptacle for 1 KW auxiliary power.

The generator is of the symmetrical, 4-pole multi-range design. There are 4 laminated main poles and 4 interpoles which are removable. Patented single unit brush rigging holds the generator and exciter brushes in a fixed neutral position.

## Heavy Duty Tractor

**The Mercury Manufacturing Co., 4044 S. Halsted St., Chicago 9, Ill.**—A newly-designed heavy duty electric tractor for use in automotive, aviation, railroad, metalworking, food, textile and other industries where material handling is a significant factor.

This unit, the Model A-800-4, is powered by two high-capacity series-wound enclosed motors capable of delivering 800 pounds normal and 5500 pounds maximum drawbar pull.

The four wheel drive and four wheel steer unit is controlled by an automotive wheel-type steering assembly and a foot-pedal accelerator. Four travel speeds in either direction may be selected by using the directional control conveniently mounted on the steering column.

## Lock Plug

**Hopax Electric Inc., 547 Greenwich St., New York 13, N. Y.**—A heavy duty electric plug with a positive but simple locking device is connected in the same simple manner as any ordinary male plug.

It fits any standard twin receptacle. A heavy metal adaptor plate with locking slots fits directly over the receptacle plate and is held tightly in place with a center screw. The plug has a sliding collar equipped with lugs to fit into two locking slots on the adaptor plate. After the plug is inserted into the wall receptacle through the adaptor plate, a twist of the plug collar locks it firmly into place until released by the operator.

## Acid Safety Goggle

**United States Safety Device Co., Kansas City 6, Mo.**—An acid safety goggle, named "Duo Chem," features bright yellow vinyl frame, the American Standards Assn. color code for acids, which affords quick visual identification of it as an acid goggle.

Light weight and genuine comfort are claimed by the manufacturer through the use of new materials such as velvet soft vinyl frames and vinyl optical plastic lens.

The manufacturer claims that this goggle offers full protection from all chemical splashes and dusts. It will fit over personal glasses and because of its extreme light weight (a little over one ounce) and attractive appearance, it should receive fine employee acceptance. It is in the low cost field and the long life of the materials used and the interchangeable lens feature offer further savings.

## Pattern Making Time Saver

**Texas Engineering & Manufacturing Co., Inc., Dallas, Texas**—A time saving idea in the making of router patterns suggested by a member of the firm's sheet metal section, is saving approximately 50-man hours a week, and even greater savings are anticipated as the company sets up its sheet metal operations to meet expanding defense requirements.

This idea involves the use of carbon paper. Prior to its introduction it was often necessary to make as many as twelve different identical patterns, depending on the thickness of the material being used, and the number of parts called for in the release. Each of these patterns had to be laid out and traced individually.

Under this new technique alternate sheets of pattern and heavy carbon are placed on a table and the layout is made on top of the stack, so that one tracing of the template can produce as many as twelve identical patterns.

## Pump with Rolling Vanes

**Milwaukee Hydro Power, Inc., 3447 N. 35th St., Milwaukee 16, Wis.**—"Magna-Mite," a low priced positive displacement pump of compact size. With a capacity from 1½ g.p.m. down to ¼ g.p.m. or less, this pump is said to be suitable for handling fuel oil, gasoline, hydraulic fluid, lubricating oils and other light viscosity fluids.

This pump is generally similar to vane type pumps in operation in construction, but has an important difference in that the conventional vanes are replaced by rollers. The rollers contact the outer case as in a ball bearing, and roller friction replaces sliding friction between the vanes and the pressure chamber. As a result, the manufacturer claims that the life of the pump is increased three to five times over that of ordinary type vane pumps.

## SOUTH ATLANTIC STEAMSHIP LINE, INC.

HEAD OFFICE: SAVANNAH, GA.

BRANCH OFFICES AT:

Jacksonville, Florida

Norfolk, Virginia

Newport News, Virginia

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*Services Between*

**U. S. SOUTH ATLANTIC PORTS**

**TO UNITED KINGDOM — EIRE —**

**NORTH CONTINENTAL PORTS AND**

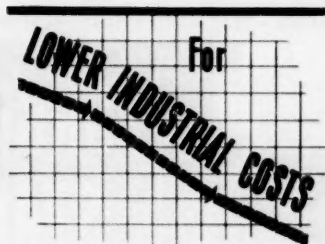
**SCANDINAVIAN AND BALTIC PORTS**

*Modern, Fast American Flag Vessels*

**CHARLESTON AGENTS: THE CAROLINA SHIPPING COMPANY**



# 4 BIG REASONS in CHARLESTON, S. C.



- ➔ **Water** an unlimited supply of low cost, soft water, with simple effluent disposal.
- ➔ **Power** plenty of low cost power, with generating facilities increasing.
- ➔ **Transportation** ocean shipping, rail and truck routes to all major markets.
- ➔ **Workers** a surplus of intelligent and productive manpower.

For full details, write  
Arthur M. Field, Chief Engineer

**CHARLESTON DEVELOPMENT BOARD**

**Charleston, S. C.**

## INVEST IN THE GREATER NEW SOUTH

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### **THE CHARLESTON & WESTERN CAROLINA RAILWAY COMPANY**

*We Offer Many Fine Industrial Sites  
From The Piedmont To The Coast*

THE C&WC RAILWAY INVITES YOU TO USE OUR SERVICES IN  
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*For Complete Information Write*

**The Charleston & Western Carolina Railway Company**  
**BEN H. BROWN, Traffic Manager**  
**Augusta, Ga.**

UPSETTING • TRIMMING • THREADING • PUNCHING • HOT-BENDING  
BROACHING • DESCALING • HEAT-TREATING • HOT-DIP GALVANIZING

## Mississippi P&L Completes Sale of Gas Properties

The sale of Mississippi Power & Light Company's natural gas properties to the newly-formed Mississippi Valley Gas Company was made final March 14. Sold for about \$11,300,000 the gas properties consist of fifty-two cities, towns and communities in Mississippi and is the largest sale of public utility holdings in the history of Mississippi. The sale was approved by the Securities Exchange Commission on January 22, 1952, but it was not completed until recently, when Minor Sumners, President of the newly-formed company, formally received the deed for the properties from Rex I. Brown, President of Mississippi Power & Light Company and in turn presented Mississippi Valley Gas check in payment.

Officiating at the closing of the sale were Rex I. Brown, President, and J. D. Stietenroth, Treasurer and Assistant Secretary, both of Mississippi Power & Light Company. Representing Mississippi Valley Gas Company were Minor Sumners, President, T. W. Crockett, Executive Vice President, and F. M. Featherstone, Secretary and Assistant Treasurer.

Minor Sumners, President of the new gas utility, is long experienced in the utility field. From 1929 to 1944, he was employed by Arkansas Power & Light Company and from 1944 to 1948 he was Chief Accountant of the Arkansas Public Service Commission, from 1948 to 1950 he was assistant to the President of Arkansas Power & Light Company and in 1950 he became President of Mid South Gas Company, which he will now continue to serve as a Director. In addition to his long utility experience, Mr. Sumners has an enviable record as a business and civic leader.

T. W. Crockett, Vice President of the new company, is a graduate of the Westinghouse Technical Night School of Electrical Engineering. He has recently completed twenty-five years of service with Mississippi Power & Light Company where he was Vice President and a Director. Well known for his work in civic activities he is past president of the Jackson Kiwanis Club, past president and director of the Jackson Chamber of Commerce, a former member of the Jackson Board of Education, a member of the shrine, Wahabi Temple, the Scottish Rite and the American Legion. F. M. Featherstone, formerly of Mississippi Power & Light Company, is serving as Secretary and Assistant Treasurer of the new company and has also been elected a member of the Board of Directors. Upon acquisition of the gas systems Mr. J. Harry Lambdin, Chief Engineer of the Gas Division of Mississippi Power will become Chief Engineer of the Company. Mr. Glenn C. Jones, Superintendent of Gas Distribution of Mississippi Power, will serve in a similar capacity for the Company and Mr. Charles M. Broad, Assistant Sales Manager of Mississippi Power, will become Sales Manager of the Company.

# FORGINGS and STAMPINGS

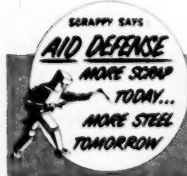
to your specifications from  
top-quality DIXISTEEL

Many manufacturers and fabricators have improved their products, increased production, and cut costs, by using the facilities of our Manufacturing Division.

Blanked and formed parts are produced on the latest type presses, ranging in capacity up to 250 tons, and including a four-slide machine. Closed-die forgings up to 20 pounds are made on modern drop hammers.

Correct chemical and physical properties are assured because forgings and stampings are made from our own, top-quality DIXISTEEL.

It will pay you to look into these facilities. We'll be happy to discuss them with you. Just write us, or call collect, we'll take over from there.



MANUFACTURING DIVISION  
**ATLANTIC STEEL COMPANY**  
Atlanta, Georgia • Division 3001

## New Port of Baltimore Handbook Given World-Wide Distribution

The most extensive maritime business manual published by an American port is being circulated throughout the United States and abroad in behalf of Baltimore with the release of the new Port of Baltimore Handbook.

This 180-page book, jointly sponsored by the Baltimore Association of Commerce and the Steamship Trade Association of Baltimore, presents a detailed account of the Port's facilities, practices, services and charges. Featuring the Maryland colors of orange and black throughout, the Handbook utilizes sepia for the more than 200 illustrations of Baltimore's port facilities.

The new Handbook is the second edition of this manual prepared by the staff of the Export and Import Bureau of the Association. The publication was prepared under the supervision of a four-man joint committee including E. A. Seidl, Chairman; T. E. Riley; G. D. Wise; and E. B. Wright.

The new Handbook is designed primarily for distribution to shippers within the United States and abroad. Of the 12,000 copies printed, it is hoped to place 6,000 in the hands of interested international businessmen abroad. A number of copies are being reserved for local distribution on a sales basis. Companies whose advertisements made the new publication possible are receiving the book at \$.75 a copy, while non-advertisers are charged \$1.25 per copy.

The entire project is self-supporting, the sale of advertising space to interested waterfront firms paying for the printing and the sale of books taking care of the mailing expenses on the overseas and out-of-town copies.

Outstanding works of leading commercial photographers of Baltimore were chosen to illustrate Port scenes. Features of the book include a detailed account of Port administration, Port organizations and Federal and City agencies having to do with waterborne commerce. Shipbuilding and ship repair are thoroughly covered, as are the facilities for the handling of bulk cargoes. A substantial new section has been added on aviation at Baltimore. Motorborne transportation to and from the Port is given extensive treatment.

Using a new method of classification, the book is broken down into sections of specific interest to the potential recipients of the new publication, both in the United States and abroad. For instance, all information of value and interest to the shipper of waterborne commerce is contained in one section, while data of interest to the ship operator is contained in another. It is believed that this treatment will provide for ease in using the book. All maps have been revised and new rates and charges are included in this volume.

Dear Son:  
Since your mother and I retired and moved south (away from ice, snow and heat bills), I have discovered something important! It's the new industrial possibilities of this country down here.  
Son — They have everything. Plenty of native labor, low fuel cost and good transportation. And Jim, the people live here graciously.  
I guess I'm partial to Georgetown it's so friendly and homelike. Oh, yes the fishing is "out of this world".  
Don't forget your trip south in June.... You might be tempted to stay.  
All our love,  
Dad

GEORGETOWN COUNTY CHAMBER OF COMMERCE  
Georgetown South Carolina

## Frisco Completes Dieselization Program

The era of the steam locomotive has come to an end on the Frisco Railway's 5000-mile, nine state system.

Performing its work just as faithfully and as well as its counterparts have on the Frisco for the last century, Steam Locomotive No. 4018 quietly pulled a local freight train into Birmingham, Ala., shortly before midnight on February 29th, completing the last steam run on the Frisco. The next day a sleek new diesel took the job and the Frisco Railway became completely dieselized—the largest Class I railroad in the United States to be operating strictly with diesel power.

The Frisco's dieselization program was obtained in a short span of five years, getting under way shortly after Clark Hungerford assumed the presidency of the railroad in 1947. The dieselization program moved quickly until now the Frisco has a total of 407 diesel units.

Noting the passing of the steam locomotive on the Frisco, President Hungerford declared today "it has long been realized that, through diesel power, the shipping and traveling public can obtain more efficient service than has heretofore been possible."

At the same time he paid tribute to the steam locomotive, declaring that "while we have looked forward to this major step in our progress for a number

of years, we must admit that it was the steam locomotive that supplied the power to span a virgin continent and furnished the only mass transportation medium that for years has helped to raise America's standard of living to what it is today."

Operating efficiency of the Frisco has shown appreciable gains since the inauguration of the diesel program. In 1947, the Frisco's gross ton per mile per hour performance was 32,703. But in 1951 when freight train performance was 86 per cent dieselized, the Frisco showed a gross ton per mile per hour handled of 41,644. At the same time the gross tons per train mile in 1947 were 1670, and in 1951 this was stepped up to 2346.

The establishment of diesel facilities has been one of the principal by-products of the changeover. At Springfield, Mo., operating hub of the Frisco, vast new yard facilities, one of the most modern diesel houses in the nation and other modern developments were added two years ago. Similar changes have been made over the entire system.

During 1951, a diesel department was established to work with the problems of maintenance and repair of the new power units.

A breakdown of the diesel locomotives owned by the Frisco shows: 17 passenger locomotives of 2250 horsepower each and six of 2000 horsepower each; 12 combination freight-passenger units, 1500 horsepower; 123 freight, 1500 horsepower; 133 general purpose, 1500 horsepower;

11 general purpose, 1000 horsepower; 75 yard switchers, 1000 horsepower; 19 yard switchers, 1200 horsepower; two yard switchers, 660 horsepower and nine 44-ton yard switchers, making a total of 407 units.

## National Container Opens Plant at Rock Hill, S.C.

Continuing its expansion program, National Container Corporation is opening a modern corrugated box plant in Rock Hill, South Carolina, according to an announcement by J. L. Kipnis, Executive Vice-President.

The new plant represents the twelfth such unit for the company, which plans also to open additional box plants at Memphis, Tenn., and Milwaukee, Wisc. National Container operates five kraft pulp, board or paper mills throughout the country and also a plant making multi-wall and display paper bags.

The Rock Hill plant will produce all types of corrugated and solid fibre boxes for manufacturers and shippers in the North and South Carolina, Virginia and Eastern Tennessee area, Mr. Kipnis said.

Joseph W. Reynolds, a veteran of 25 years experience in the shipping container industry, has been appointed divisional manager of the Rock Hill plant.

Assisting Mr. Reynolds in the sales department at Rock Hill is James A. Cobb, who has had extensive sales experience in the industry.



## GREENVILLE STEEL AND FOUNDRY COMPANY

*Designers, Fabricators and Erectors*

STRUCTURAL STEEL  
REINFORCING STEEL  
WELDED TANKS  
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STAINLESS-CLAD FABRICATION

TEXTILE INDUSTRIAL TRUCKS  
CONTINUOUS PEROXIDE BLEACH SYSTEMS  
SPECIAL MACHINERY  
NICKEL-CLAD FABRICATION  
FIELD WELDING

ON SOUTHERN  
AND P. & N.  
RAILROADS

**GREENVILLE**  
S O U T H  
C A R O L I N A

*Compare—*

## **SOUTH CAROLINA'S METROPOLITAN AREAS!**

<b>Metropolitan Areas U. S. Census 1950</b>	<b>Population</b>	<b>*Volume Manufacturing</b>	<b>*Total Business Volume</b>
<b>Greenville</b>	168,152	\$464 million	\$999 million
<b>Richland</b>	142,565	\$44 million	\$545 million
<b>Charleston</b>	164,858	\$59 million	\$352 million

\* County figures from "1952 Blue Book of Southern Progress"

*Note:* THE 1950 U.S. CENSUS  
RANKED GREENVILLE 103rd METRO-  
POLITAN AREA IN THE NATION,  
LARGEST IN SOUTH CAROLINA!

## **GREENVILLE—**

*"Textile Center of The South"*

FOR COMPLETE INDUSTRIAL INFORMATION WRITE, WIRE, CALL:

**Greenville County Planning and Development Board**

**GREENVILLE CHAMBER OF COMMERCE**

**P. O. DRAWER 1500**

**GREENVILLE, S. C.**



## Humble Spends Nearly A \$ Billion on New Facilities Since the War

By mid-1952, Humble Oil & Refining Company will pass the billion-dollar mark for expenditures on new facilities since the end of World War II.

The huge postwar total became known when Hines H. Baker, Humble President, announced that the Company plans to spend this year \$245 million for drilling wells and other facilities, including the cost of dry holes. Since the Company has already spent \$872 million for similar purposes during the past six years, the plans for 1952 will raise total expenditures to more than a billion dollars about the middle of this year. The program projected for 1952 is substantially larger than in 1951.

Last year the Company spent \$188 million on new facilities, including \$29 million in dry holes. These expenditures exceeded those of the previous record year, 1948.

Humble's large investments have been part of the \$13 billion capital expenditures made by the petroleum industry during six postwar years. These industry investments were necessary to meet the increasing demands for petroleum products. Total demand in 1952 will exceed those of 1949 by 25 per cent, and will be more than double the amount required by the American people in 1940. The oil

industry is currently supplying about two gallons of oil products each day for every man, woman, and child in the nation.

These enormous investments by the oil industry provide the additional oil wells, the new pipe lines, the added refining capacity and distribution facilities to make available the oil for normal requirements and to provide for national security.

All this new capacity is being added at a much higher cost than before the war. For example, the average well drilled by Humble last year cost more than three times as much as it did ten years ago. This 1951 average was \$81,500 per well, but some dry holes cost as much as \$500,000 and one producing well cost more than a million dollars to complete.

Humble's tax payments in 1951, excluding gasoline taxes collected by the Company for federal and state governments amounted to \$85 million and have added up to more than \$335 million during the postwar years.

## Southwest Research Institute Joins Scientific Research Society of America

The first branch of the Scientific Research Society of America between Pennsylvania and the Pacific Coast has been established in Texas in recognition of the work of Southwest Research Institute.

Dr. George A. Battsell, editor-in-chief of publications for the American Association for the Advancement of Science and professor of biology at Yale University, presided over the installation of officers March 7 for the Southwest Research Institute branch of RESA.

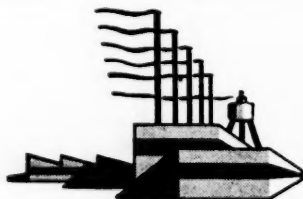
Dr. William V. Houston, president of the Rice Institute in Houston and a trustee of SwRI, was principal speaker at a dinner in the St. Anthony Hotel preceding installation of Dr. Charles A. Culver, an authority on electroacoustics and dean of professional development at SwRI, as first president of the branch.

Several trustees of the scientific institutions at Essar Ranch and other guests attended ceremonies at which twenty-two charter members, all holding doctorate or master's degrees, were sworn into the new RESA unit.

In addition to Dr. Culver, other elected officers included Dr. John Loefer, research biologist of the Southwest Foundation for Research and Education, vice president; Dr. John C. Cook, SwRI physicist, secretary, and Fred Koebel, SwRI mechanical engineer, treasurer.

Membership in RESA is based on demonstrated research ability and published results while its primary purpose is to encourage original investigation in science, pure and applied.

Dr. Battsell is national treasurer of RESA and Dr. Karl T. Compton of the Massachusetts Institute of Technology national chairman.



# AIKEN

Aiken, which has long been a favorite winter resort, is never-the-less an important center of industry. Adjacent to the city are five of the largest cotton mills in the state, a vast deposit of clays and shales, bountiful forests and rich farm lands.

A sixty-five million dollar power plant is now under construction to add to the already large supply of steam and hydraulic power; the Savannah River offers low cost barge transportation to world ports, and a network of highways and rail lines assure fast transportation to domestic markets.

The construction of the billion-dollar atomic energy plant not only assures a big increase in the business of retail and service organizations, but it

opens up opportunities for a wide variety of industrial plants to serve the growing demands created by the construction project.

Despite the hustle and bustle of the 25,000 workers already employed in construction, Aiken has lost none of its charm. It has a modern hospital, outstanding schools, beautiful parks and bridle paths, and has embarked on a program of developing beautiful new residential centers to care for the needs of the highly paid scientists who will be employed permanently.

To help Aiken more fully develop its opportunities, this bank organized a branch office in 1948 that offers all the facilities of its main banking house.

# The BANK of GREENWOOD

AIKEN BRANCH: LAURENS STREET, AIKEN, SOUTH CAROLINA

# Hub of an Empire!

## GREENWOOD

### Why It GROWS GREATER

For more than 30 years our motto has been "GREENWOOD GROWS GREATER." This is no idle boast. Greenwood has grown to be one of the greatest counties in South Carolina. Here are a few of the reasons that we can make that claim to greatness:

More people are employed in manufacturing in Greenwood County, in proportion to the total population, than in any other county in South Carolina. A total of 24.62% of the people in Greenwood County are employed in manufacturing plants.

Greenwood County textile workers are paid 5% more than the average textile employee in South Carolina, and the products they manufacture are worth more per capita, than those manufactured in any other county.

The average citizen of Greenwood County can buy 27% more goods than his cousins in other parts of the state, because our per capita income is 4th in the entire state.

Greenwood County ranks 5th in total wages paid by manufacturing establishments, in spite of the fact that we are 38th in size and 15th in population.

What we manufacture can be shipped out easier, and what we buy brought in more quickly than the average county, because Greenwood County ranks 4th in paved roads, and 4th in length of main line railroads.

Our total farm area is 37th among the counties of the state, yet the value of our farms brings us up to 25th place, and the number of tractors in use puts us in 23rd place. This means that Greenwood County farms have better soil, are better equipped,

and can produce more with less effort than the average farm in South Carolina.

Greenwood County ranks 11th in car ownership, and the citizens of our county own 18% more cars than their cousins in the rest of the state.

Greenwood County teachers are paid almost 10% more than the average teacher in the state, and they teach smaller classes. The average class in Greenwood County is 24 students.

More Greenwood County rural homes have telephones than any other county in the state, and every telephone in the county is dial operated.

Greenwood County is a great place in which to live! But why? Things like this don't just happen!

Every worthwhile advance in man's progress comes about as a result of someone's sweat and tears. Every move upward on the ladder of achievement is brought about by farsighted pioneers. Men who are willing to give up the security of a routine average life and take a chance on something better. Men who are not satisfied with the present.

In modern history, particularly industrial history, you will find that every leader who won fame and fortune for himself, raised the living standards and bettered the lot of his co-workers and neighbors.

That's why Greenwood is a Great County. The story of our progress is the story of modern pioneers. And, more important, it is the story of GREENWOOD COUNTY PIONEERS. Ordinary home town men and women who pushed on for greater things for themselves and, in gaining them, found greater things for their friends.

*This bank has been one of the factors that have made Greenwood great. We invite you to come to Greenwood County and share in developing the greater opportunities that lie ahead. Send for free booklet today.*

## The Bank of Greenwood

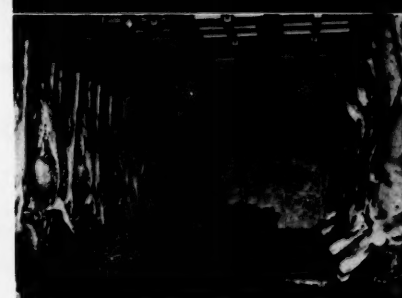
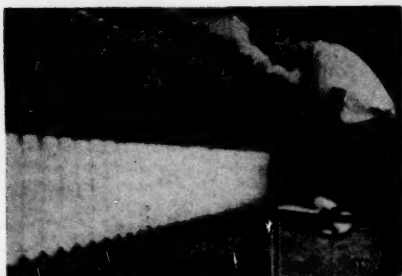
Greenwood, South Carolina

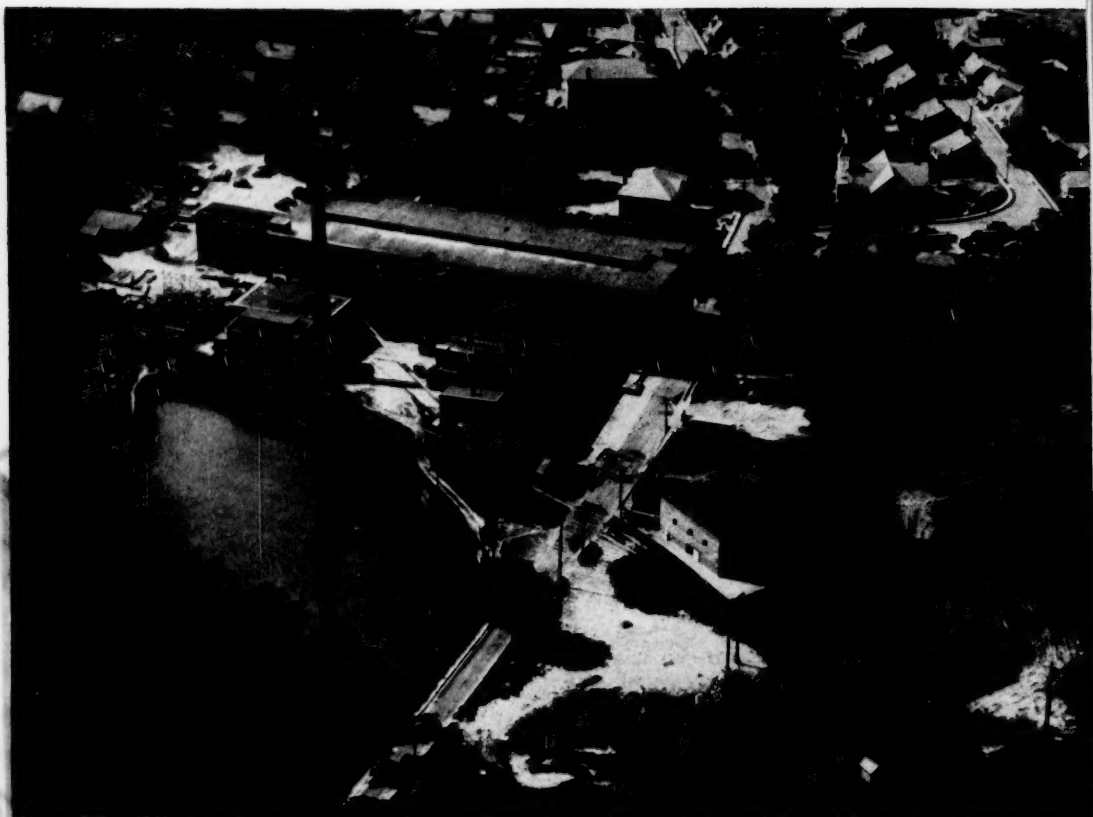
With Branches at

Ware Shoals • Aiken • Ninety Six  
Harris • Mathews

Member Federal Deposit  
Insurance Corporation

Total Assets Over \$24,000,000.





*Grendel Mill, Greenwood, home office of the Abney Mills*

• OTHER PLANTS IN SOUTH CAROLINA INCLUDED IN THIS GROUP: •

ANDERSON MILL .....ANDERSON

COURTENAY MILL .....NEWRY

BELTON MILL .....BELTON

PANOLA MILL .....GREENWOOD

BRANDON DRYER FELT MILL, GREENVILLE

POINSETT MILL .....GREENVILLE

BRANDON MILL .....GREENVILLE

RENFREW BLEACHERY ..TRAVELERS REST

BRANDON RAYON MILL ....GREENVILLE

WOODRUFF MILL .....WOODRUFF

*The* **ABNEY MILLS**

*General Offices:  
Greenwood, South Carolina*

## **Lock Joint Completes Erection Of Pipe Plant at Columbia, S. C.**

Erection of a new plant that will manufacture prestressed concrete pressure pipe has just been completed at Columbia, S. C., by the Lock Joint Pipe Co., of East Orange, N. J., according to an announcement by the Luria Engineering Corp. of New York.

The plant includes seven standardized steel-frame structures designed by Luria to specifications of the Lock Joint Pipe Co.

Covering 1,341,648 square feet, or more than 30 acres, the plant is in a new industrial section being developed about five miles from the center of Columbia.

The largest of the building units, consisting of a main structure covering 7,000 square feet and a long lean-to covering 12,000 square feet, will be employed for cranes. With a 38-foot rail height, it has been designed for two 15-ton cranes and has an open craneway that extends 120 feet on one side and 100 feet on the other. It will house machinery, a batching plant, boiler room, wash house and storage facilities.

The second largest building, with 14,000 square feet, will be a shop for the fabrication of steel cylinder.

A third building will be devoted to wrapping prestressed wire on concrete cores, with a fourth for laboratory and cement storage.

Two other buildings, one designed for a three-ton crane and the other for a one-ton crane, will be employed for the manufacture of special pipe and for wire storage.

The seventh building will be a miscellaneous storage building for stocks, materials and tools.

## **Sylvania Announces Purchase of Blair Park Furniture Mfg. Co.**

Sylvania Electric Products, Inc., announced, in February, the purchase of the cabinet plant of the Blair Park Furniture Manufacturing Co. in High Point, N. C., which will have a yearly payroll of over \$1,000,000. The one-story brick structure of 55,000 feet of floor space and 1,000 feet of spur track, is situated on a ten and one-half-acre site allowing room for expansion, has fluorescent lighting, dust collecting system, kilns, spray rooms, and is the last word in modern industrial construction.

Sylvania expects to begin operations here in this large furniture-minded city as soon as the initial production staff of approximately 200 persons is assembled. Arthur L. Chapman, vice president and general manager of Sylvania's radio and television division, said the company would produce cabinets for television sets at the High Point plant.

Frank Miller, head of the local employment agency, stated that there is an ample supply of surplus labor in the area at the present time and Sylvania officials indicated that the plant may be in operation in the near future.

# **GREENWOOD MILLS**

**Greenwood, South Carolina**

**Manufacturers of**

## **COTTON AND RAYON FABRICS**

**With the Following Plants:**

**GREENWOOD PLANT, GREENWOOD, S. C.**

**MATHEWS PLANT, GREENWOOD, S. C.**

**HARRIS PLANT, GREENWOOD, S. C.**

**NINETY-SIX PLANT, NINETY SIX, S. C.**

---

**A South Carolina Corporation  
owned and operated  
by South Carolina people.**

---

**Selling Agents**

**GREENWOOD MILLS, INC.**

**64 Worth Street, New York, N. Y.**

## Rust Completes New Harbison-Walker Plant Unit at Fairfield, Alabama

An additional manufacturing unit is nearing completion at the Fairfield, Alabama plant of Harbison-Walker Refractories Company, according to the engineer-constructor, The Rust Engineering Company.

The new unit will increase Fairfield production of silica brick by an estimated 50%.

Existing raw materials handling facilities will service the added unit which is equipped to handle complete manufacture of the refractories used basically in building open-hearth steel furnaces, by-product coke ovens, and miscellaneous furnaces in the iron and steel industry and other industries.

The Rust contract involved the production plant with the exception of kilns and driers. Field work on the new plant unit was begun in June of 1951.

## Naugatuck Chemical Division Opens New Southwestern Branch

Naugatuck Chemical Division, United States Rubber Company, has opened a new southwestern branch office for the sale of rubber and plastic latices used in paints, adhesives, industrial gloves, bal-

loons, dolls, carpets, and the coating of paper and textiles, Albert W. Holmberg, sales manager, announced recently.

The new branch will be located at 1480 North Thomas Street, Memphis, Tenn. It will cover the states of Kansas, Missouri, Texas, Arkansas, Louisiana, Mississippi, Alabama, southern part of Illinois and Indiana, and western sections of Kentucky and Tennessee.

Included in the Naugatuck line of products to be handled by the new branch are: natural and synthetic rubber latices, compounded, ready-to-use latices known as Lotols, water dispersions of reclaimed rubber or plastics known as Dispersite, high styrene plastic latices known as Kralac, and acrylonitrile latices known as Nitrex.

Arthur Thomas, Jr. has been appointed technical representative in charge of the new branch office, Mr. Holmberg announced.

## Central Kentucky Broadcasting Co. Buys Lexington Station

The Central Kentucky Broadcasting Company, Inc., owner and operator of station WLEX Lexington, have bought all the stock of station WKLX from the Fayette Broadcasting Company, for the reported sum of about \$100,000.

Both stations are located in the Lexington area. WLEX broadcasts on 1340 kilocycles and is powered with 250 watts.

WKLX, the newly acquired station operates on 1000 watts and broadcasts on 1300 kilocycles. J. L. Brownell, Sr., managing director of WLEX said he does not contemplate making any changes in the personnel.

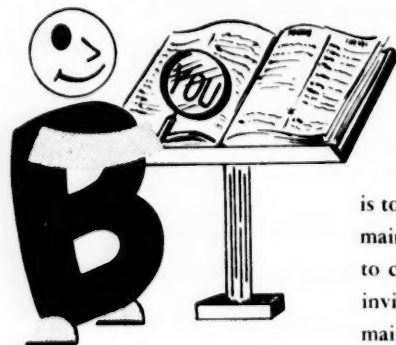
In making the announcement J. B. Gay, Jr., President of the Central Kentucky firm said, the completion of the transaction is subject to the approval of the Federal Communications Commission.

Gay termed the purchase "a milestone in the progress of our company." At another time, he said, "It is our intention to utilize our increased resources for the advantage of the service area."

Other directors of the Central Kentucky Company besides Gay and Brownell, are, H. G. Bell, Paris business man; Samuel Milner, Paris attorney and Joe Eaton, executive of Louisville Radio Station WKLO.

## Missouri Development Division Names Larkin to Research Post

Lloyd Larkin, 23-year-old St. Louis County resident, has joined the industrial development section of the Missouri Division of Resources and Development, in charge of research. Larkin graduated from the University of Missouri with a degree of bachelor of science in business and public administration. His specialty was statistics, with accents on economics and mathematics.



## SERVICE FOR EVERY *Glass* NEED

**"YOU"** is the most important word in our dictionary and YOU are the most important factor in our business.

Our entire operation is built around You. Our major aim is to serve You with the finest quality Glass products for plant maintenance. No problem or need of yours is too small for us to consider. Remember, we are in business to serve you and invite you to come to us with your Glass requirements for maintenance and expansion.

**BINSWANGER & Co.**  
INCORPORATED  
FOUNDED 1872

1800 Laurel Street

Phone 2-1935

Columbia, S. C.

951 Fifth St. 127 Dunn Road Macon & Washington Sts. 219 Evans St. 544 Patton St.  
Macon, Ga. Fayetteville, N. C. Greensboro, N. C. Florence, S. C. Danville, Va.  
3300 W. LEIGH ST., RICHMOND, VA.

### OTHER BRANCHES AT:

LITTLE ROCK • MEMPHIS • SHREVEPORT • NEW ORLEANS • HOUSTON  
AUSTIN • FORT WORTH • DALLAS • BEAUMONT • PORT ARTHUR • BAYTOWN

## Glass PRODUCTS BY LIBBEY-OWENS-FORD

**AKLO GLASS**  
Absorbs heat and reduces glare

**TUF-FLEX GLASS**  
Resists physical and heat shock

**THERMOPANE GLASS**  
Insulates heat and sound

**POLISHED PLATE GLASS**  
Clearest vision with finest surface

**TOREX GLASS**  
Diffuses light evenly

**PATTERN GLASS**  
Wide variety for window and partitions

**INSULUX GLASS BLOCK**  
Provides light, privacy and insulation



# NEWBERRY SOUTH CAROLINA

*"The City of Friendly Folks"*

**F**RIENDLY — more than just handshake and a pleasant word. Friendly to industry, because of the large supply of native-born workers, who are unspoiled; friendly because of the mild climate, assuring health for the workers and lower costs of construction and maintenance; friendly because there is close cooperation between state, county and city officials and industry.

A fine balance between agriculture and manufacturing. Two railroads to serve you, as well as a network of good highways to markets

and deep-water ports. Low cost electric power, too. Adjacent to 3 hydro-electric plants.

And an abundance of timber, cotton, corn and cattle, as well as other products.

You will enjoy the wholesome atmosphere here, with the outstanding municipal improvements, fine schools and churches, and progressive stores.

Write for the special issue of a publication which we have just issued: "Newberry County Offers Many Opportunities."

CHAMBER OF COMMERCE  
NEWBERRY • SOUTH CAROLINA

## IMPROVE PRODUCTION *with* MANHATTAN RUBBER COVERED ROLLS

RUBBER LINED  
TANKS

•  
PIPE AND  
FITTINGS

•  
RUBBER  
AND  
ASBESTOS  
PRODUCTS

Every modern facility, including the largest vulcanizing and roll grinding equipment, is available at Manhattan for development and production of roll coverings that will meet unusual conditions. Workmanship, care in handling, reflect our 60 years of roll covering experience. You can definitely improve your production quality-wise and cost-wise by relying on Manhattan Rubber Covered Rolls.

•  
**RAYBESTOS-MANHATTAN, INC.**  
N. CHARLESTON, SOUTH CAROLINA

## WHO'S WHERE

C. K. Madison, Southwest Regional Sales Manager of Rockwell Manufacturing Company, has announced the appointments of **M. D. Gilbert** as Kansas City District Sales Manager and **Roy R. Bush** as Tulsa District Sales Manager.

Mr. Gilbert became affiliated with the Pittsburgh Meter Company in 1924 as Sales Representative for Southern Texas. When the company merged and became the Pittsburgh Equitable Meter Division of Rockwell Manufacturing Company, he

was assigned to their Houston District Office. In 1944 he was promoted to Tulsa District Sales Manager, a position he held until his recent appointment.

In 1934 Mr. Bush joined the Rockwell Sales Staff in the Tulsa area. He became Special Sales Representative for the company's Nordstrom Valve Division and in 1951 was appointed Sales Manager of Oil Field Products with headquarters in Pittsburgh.

Mr. Joel T. Henry, President of Winder Aircraft Corporation, Winder, Georgia, announced the appointment on March 25 of **Mr. W. Henderson Cotter** of Tampa, Florida, as Sales Manager, Parts Division.

Mr. Cotter, a civil engineer since 1930, served as a Transportation Agent for the army Transportation Corps during World War II following three years with Eastern Airlines in the Traffic Division. Winder Aircraft Corporation was organized in 1949 to engage in the manufacture, sales, and distribution of aircraft parts as well as in the overhaul and modification of military aircraft for the armed services.

Fresh'nd-Aire Company of Chicago, a division of Cory Corporation, recently announced the appointment of **W. K. Simpson** Company, Memphis, Tennessee, as factory representatives. Simpson will market the complete Fresh'nd-Aire line of air treatment equipment throughout the state of Arkansas and the western part of Tennessee. H. Hartmann, Fresh'nd-Aire general manager, stated this week.

The Fresh'nd-Aire Company recently introduced a portable electric room Dehumidifier and two models of Air Conditioners to round out its line. These products, as well as Fresh'nd-Aire's line of electric fans, humidifiers, commercial electric air circulators and heater-fans, will be handled by the new sales representatives.

**D. G. Dodds, Jr.** has been appointed district sales representative for Kerotest Manufacturing Company, Pittsburgh, Pennsylvania in the southeastern territory with headquarters at 3727 Peachtree Road, N.W., Atlanta, Georgia.

Mr. Dodds is a graduate of Washington & Jefferson College and has been connected with the Kerotest general sales department in Pittsburgh and the New York district sales office for the past several years. Kerotest manufactures valves and fittings for the refrigeration and air conditioning industry; for liquefied petroleum and other compressed gases; and for the petroleum production, transmission and refining industries.

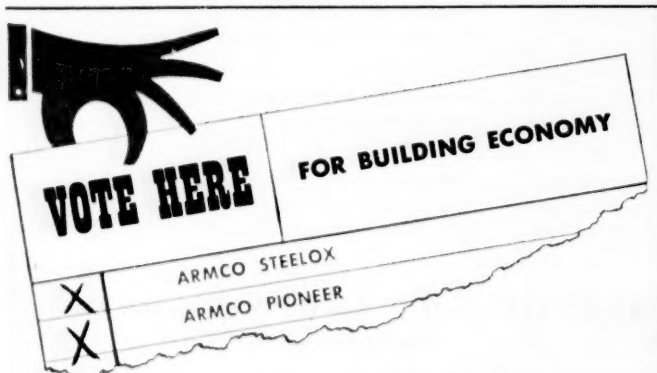
**Guy H. Gilmer, Jr.**, assistant yardmaster of the Norfolk and Western Railway at Pulaski, Va., has been promoted to superintendent of agencies with headquarters in Roanoke, effective March 16, it was announced today. He succeeds the late C. H. Fagan.

Entering N. & W. service in March, 1941 as yard clerk at Pulaski, Mr. Gilmer was furloughed for military service in March, 1944. He returned to the N. & W. in November, 1945 as bill clerk at Pulaski.

Mr. Gilmer was promoted to supervisor of agencies in February, 1947, and was advanced to assistant yardmaster at Pulaski in December, 1951.

A native of Bristol, Va., he is a graduate of Hampton Sydney College.

Appointment of **John H. Painter** as special representative for General Electric broadcast equipment, with headquarters in the Wyatt Building, Washington, D. C., has been announced by Frank P. Barnes, broadcast equipment sales manager.



We nominate Armco STEELOX and Armco PIONEER Buildings to run on the "economy ticket." Their low installed cost helps you balance your building budget.

With either building there is no worry about over- or under-expansion. They can be added to, changed around, or completely dismantled and moved to another location.

STEELX Building sizes range from

4 to 36 feet wide and in unlimited lengths. Unique STEELOX construction permits erection in a few hours with unskilled labor.

PIONEER Buildings range from 30 to 100 feet in clear span widths, eave heights go up to 24 feet. Here again, lightweight prefabricated structural members make erection easy.

Write for details on the building that suits your needs.

### ARMCO DRAINAGE & METAL PRODUCTS, INC.

DIXIE DIVISION  
619 Forsyth Bldg. • Atlanta, Georgia  
SOUTHWESTERN DIVISION  
3500 Maury St. • Houston, Texas  
Other Offices in Principal Cities



### ARMCO STEEL BUILDINGS



## ORANGE COTTON MILLS

*Established 1882*

MANUFACTURERS OF  
FINE  
COTTON TWINES, YARNS AND ROPE  
ORANGEBURG,  
SOUTH CAROLINA

*Compliments of*

COLUMBIA MILLS

*of the*

Mt. Vernon-Woodberry Mills, Inc.

Columbia, S. C.

## LAURENS MILLS

LAURENS,  
SOUTH CAROLINA

*Producers of*  
***Fine Rayon and Cotton***  
***Fabrics***

Selling Agent — Diering Milliken & Co.

240 Church St., N. Y. C.

***Investigate...***

## ORANGEBURG SOUTH CAROLINA

***"Home Of Edisto Gardens"***

(MUNICIPALLY OWNED AND OPERATED)

- Plentiful Water & Power
- Mild Climate
- Abundant Native Labor
- Friendly People

***Contact***

ORANGEBURG CHAMBER OF COMMERCE  
P. O. Box 336 • Municipal Bldg.  
ORANGEBURG, SOUTH CAROLINA



**CARECO One Piece Furnace Lining has supplanted fire brick as a boiler furnace refractory.**

It increases the life of the furnace, lasting from two to three times, often four to five times, longer than fire brick.

Installation cost is low, only common labor being required to install it.

Low maintenance cost. Boilers may be operated for more than a year—often two to three years—without a shutdown for furnace repairs.

*Let us quote you on your requirements.*

**CAROLINA REFRACTORIES COMPANY**  
HARTSVILLE, SOUTH CAROLINA

# RUBBER INDUSTRY

(Continued from page 60)

B. F. Goodrich Co., prior to 1940, had only two plants in the South, the textile mill in Georgia and the sole and heel plants in Tennessee. Since then the company has built two large tire and tube plants, one in Oklahoma and the other in Alabama, and it is currently building a \$5 million chemical plant in Calvert City, Ky. The largest synthetic plant operated by Goodrich for the Government is located at Institute, West Virginia, by the Goodrich Chemical Co. This plant, built during the last war, has been completely modernized. It employs approximately 800 persons. In addition, Good-

rich operates a Government-owned GR-S plant at Port Neches, Texas, which has a capacity of 60,000 long tons of rubber.

United States Rubber employs over 6,000, including 465 at the Port Neches Government-owned synthetic rubber plant. This plant, reactivated in 1950, has a capacity of 76,000 tons a year.

In addition, U. S. Rubber has a wide variety of plants in the South. It operates its own Paracril synthetic rubber plant at Baton Rouge with 104 workers. This is being greatly expanded. Paracril is a major ingredient in water-based paints, and it is also used as a coating for paper, textiles and leather.

At Burlington, U. S. Rubber operates two small plants employing 244 persons, making textile fabrics and Laxtex yarn. At Gastonia, N. C., the company's 362 employees make combed cotton yarn. At

Hogansville, Ga., 1,465 employees make tire cord, chafer fabric and asbestos fabric. At Milan, Texas, 870 workers are making waterproof clothing. Scottsville, Va., has 244 workers in a rayon cord plant. Shelbyville, Tenn., has 756 workers in a tire cord plant, while at Winnsboro, S. C., 1,590 workers are in U. S. Rubber's textile and research operations.

**Aspects of Permanency**—The great improvement in synthetic rubber, for certain uses, resulting from the development of so-called cold rubber, has entrenched the position of Southern synthetic rubber plants, which some day may be owned, as well as operated by private industry. Firestone Tire and Rubber Co., which operates the Government-owned synthetic rubber plant at Lake Charles, La., announced recently that this plant had been 100 per cent converted to production of cold rubber. This conversion was in line with the national program to convert 75 per cent of total synthetic rubber output to production of the more durable "cold" rubber.

The new oil-extended synthetic rubber, developed in Goodyear laboratories under the sponsorship of the Synthetic Rubber Division of the Reconstruction Finance Corp., went into commercial production at Houston last year. This new product consists of 25 parts of special processing oil, to which was added 100 parts of butadiene-styrene. Later, a 50 per cent increase in the amount of extending oil used was found possible, without any impairment of quality. This may well affect the price of synthetic rubber some day. Other Government-owned plants now using this process include those operated by Copolymer Corp., at Baton Rouge; General Tire, at Baytown, Texas; Phillips Petroleum at Borger, Tex.; Goodrich at Port Neches, and Midland Rubber at Torrance, Cal. The industry is now producing oil-extended rubber at the rate of 10 million pounds a month.

Tires made of the new rubber show tread wear equal to, if not superior to those made with standard cold or natural rubber.

## 125TH ANNUAL REPORT

OF

## THE BALTIMORE AND OHIO RAILROAD CO.

### HIGHLIGHTS OF THE YEAR 1951

Because of heavy traffic and increases in freight rates, the Baltimore and Ohio Railroad's total income for 1951 was 11.87% above 1950. BUT expenditures increased 11.28% at the same time.

Net railway operating income in 1951 represented a return of only 3.57% on net investment in transportation facilities.

Increased operating efficiency enabled the railroad to reduce freight train miles by 2.11%, although freight-ton miles handled increased by 10.1%.

Tax accruals for the year totaled \$35,669,276—the equivalent of total revenue from all transportation services for 29 days.

More than \$36,360,000 was invested in improvements and new equipment in the year.

Average employment throughout the year was 57,932 persons, an increase of 8.1% over 1950. Annual wages and payroll taxes per employee in 1951 were \$4,254—up \$271 from 1950.

### STATISTICAL SUMMARY

Income	Year 1951	Increase over 1950
From transportation of freight, passengers, mail and express	\$432,535,559	\$44,898,210
From other sources—interest, dividends, rents, etc.	27,500,317	3,909,113
Total income	\$460,035,876	\$48,807,323
<b>Expenditures</b>		
Payrolls, materials, fuel, services and taxes	\$401,997,398	\$41,446,748
Interest, rents and miscellaneous services	38,886,770	3,245,947
Total expenditures	\$440,884,168	\$44,692,695
<b>Net Income</b>		
For improvements, sinking funds, and other purposes	\$19,151,708	\$4,114,628

R. B. WHITE, President

### Branch Warehouse in St. Louis Opened by Quaker Rubber Co.

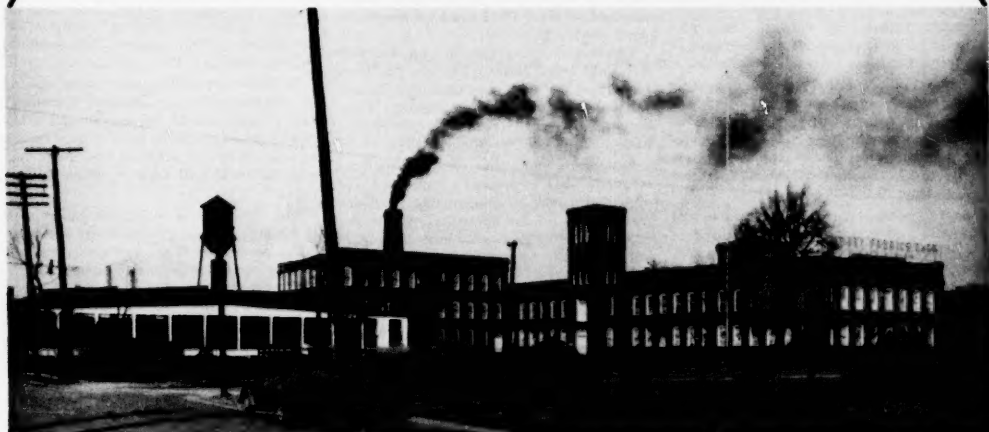
To provide better service and deliveries to the growing St. Louis Industrial Area, Quaker Rubber Corporation, Division of H. K. Porter Company, Inc., Philadelphia, has established a stock-carrying branch warehouse and sales office at 4006 Papin Street, St. Louis, Mo., it was announced by T. M. Evans, President.

The opening of this branch warehouse is the latest move in Quaker Rubber Corporation's established policy of expanding its distribution facilities to all important industrial areas in order to provide them with prompt service and a complete line of industrial rubber products, including rubber conveyor and transmission belting, hose, packing and miscellaneous molded rubber products.

# ROCK HILL

"South Carolina's Good Town"

CELEBRATING 100 YEARS OF PROGRESS • MAY 4-10, 1952



The ROCK HILL COTTON FACTORY, the first steam cotton mill in South Carolina, was organized in 1880 and is still in operation as the Gold-Tex Fabrics Corporation, Mill Division.

THE background of this entire region is basically agricultural. York County in which ROCK HILL lies has a variety of rich soils producing cotton, turkeys, peaches, small grains and livestock.

Fine churches and schools are among the City's greatest assets. ROCK HILL is also proud of the fact that it is the home of WINTHROP COLLEGE, the South Carolina College for Women, with a minimum enrollment of 1200 young women from many States of the Union and several foreign countries.

Now the fifth largest city in South Carolina, ROCK HILL has made steady progress over the years as is indicated by the following census figures:

Year	Population	% Increase
1870	273	—
1880	809	196.3
1890	2,781	243.7
1900	6,400	130.1
1910	7,215	12.7
1920	8,809	22.0
1930	11,322	28.5
1940	15,009	32.6
1950	24,502	63.3

NOW located in and around ROCK HILL are the following manufacturing plants:

	Established
Gold-Tex Fabrics Corp., Mill Division	1880
Highland Park Manufacturing Co.	1889
Victoria Cotton Mill	1889
Arcade Cotton Mill	1896
Industrial Cotton Mill (J. P. Stevens Co.)	1896
Aragon-Baldwin Mills (Aragon Plant, J. P. Stevens Co.)	1907
Farmac Mills, Inc.	1913
Rock Hill Body Company	1915
Rock Hill Printing & Finishing Co. (M. Lowenstein & Son)	1929
Samarkand Mills (2 plants)	1940
Celriver Plant, Celanese Corporation of America	1948
Dave Baer Hosiery Mill, Inc.	1948
National Container Corporation	1952

If this representative group of manufacturing plants elected to locate in ROCK HILL, doesn't it indicate that we might have something that would interest you?

Further information gladly furnished by

**ROCK HILL CHAMBER OF COMMERCE**

P. O. BOX 590

ROCK HILL, SOUTH CAROLINA



## Georgia Ports Authority Filling Space at New Docks

Although it will be next November before the Savannah State Docks of the Georgia Ports Authority are officially opened, port officials already have filled three-fourths of the 2,000,000 square feet of warehouse space at the port site.

Henry W. Sweet, of Savannah, general manager of the Authority, reported recently that 1,500,000 square feet of space is being utilized by various firms and groups in anticipation of the opening of the port facilities to world shipping.

Formal opening of the docks, providing modern shipping berths, three transit sheds, and railroad and truck ramps to the docks, is scheduled for late November, but port officials expect some vessels to tie up at the new \$5,500,000 facilities before that date.

At the present time, a wide variety of products and material is being stored in the Authority's modern concrete-floored, fire-proof warehouses, long used only for cotton and cotton waste storage.

Products there today still include cotton and cotton waste, but also canned citrus fruit juice, canned pineapple products, sugar cane pith, clay, lumber, Christmas tree ornaments, glass from Belgium, bed springs, appliances of all types, muriate of potash used in making fertilizer, and military supplies.

Some of the material in the state port

warehouses is awaiting domestic distribution, but a sizable portion of the remainder is designated for overseas allies and the U. S. military forces.

Cotton, for instance, may go in either direction. If bound for foreign markets, the cotton is processed by the port's own high-density compress for easy loading into the holds of ocean-going vessels.

Much of the high grade Southern lumber, for which Savannah serves as an important distribution center, is earmarked to fill a vital need on the European continent.

Canned citrus fruits and pineapples, not only from nearby Florida but from faraway California and even the Hawaiian Islands, are also occupying warehouse space until ready for distribution to domestic and foreign markets.

Savannah and other Georgia business interests have expressed amazement and approval at the efficient operation of the warehouses — an operation which has enabled the Authority to be self-sustaining for nearly two years before its shipping facilities are to be open to general shipping traffic.

Purchased from the federal government for \$800,000 the state port property has already earned more than one and a quarter million dollars, according to a report by Georgia's Governor Herman Talmadge in a recent message to the State Legislature.

Port officials themselves credit the success of the enterprise to the ever-increas-

ing need for such facilities in the expanding economy of the New South, to aggressive advertising and promotion, to effective salesmanship, and to "just plenty of hard work by all concerned."

## S. C. Development Board Publishes "Industrial Directory of South Carolina"

A revised edition of the "Industrial Directory of South Carolina," compiled by the Research, Planning, and Development Board, came off the press on March 10.

In great demand among those seeking a complete catalogue of South Carolina's recent tremendous industrial gains, the book represents more than a year's work by the technical staff of the board, according to Mr. Charles N. Plowden, Director.

The directory is a regular bulletin of the board and is designed for free distribution within the State's borders, but is sold for \$1.00 to non-residents.

Almost five years have elapsed since the last revision of the directory was made, and the book graphically reflects the industrial progress of the State in recent years, with hundreds of new additions to the list of industries.

Printed in 100 pages on coated paper, the directory bears an attractive cover featuring a photo-montage of South Carolina industries.



## GOLDEN ANNIVERSARY

Chiquola Manufacturing Company was founded in the year 1902 by native South Carolinians and has operated continuously under the same management since that time.

We feel we have been of benefit to our great State as well as to ourselves. During those 50 years we have paid out more than TWENTY-THREE MILLION DOLLARS in wages to the hundreds of fine people who have been on our payroll; we have purchased more than FORTY-SIX MILLION DOLLARS worth of cotton from our farmers; we have paid more than

SEVEN MILLION DOLLARS in taxes for the support of our City, County, State and Federal Governments; and we have donated THOUSANDS of DOLLARS to our Churches, Schools, Orphanages and Charities. While doing all this we have produced more than ONE BILLION YARDS of cotton fabrics.

Through constant adoption of new ideas, new methods, and modern machinery, we confidently expect a bright future interwoven with the tremendous progress of the great state of South Carolina.

**CHIQUEOLA MANUFACTURING COMPANY**  
HONEA PATH, SOUTH CAROLINA

# CLEMSON

## *Agricultural College*

CLEMSON, founded as an agricultural college, has become far more than that. Today the college offers twenty-nine curricula under the schools of Agriculture, Engineering, Textiles, Arts and Sciences, Chemistry and Education. Enrollment in the schools of Agriculture and Engineering is today surpassed by that of the School of Textiles, in which more than twenty per cent of Clemson's students are majoring. With the aid of the textile industry in the state, the Textile School has recently undergone a million dollar expansion program which has made it unparalleled in the world for its purpose.

In addition to the regular college work at Clemson, other services include the Agricultural Extension Service, The Agricultural Experiment Station, Livestock Sanitary Work, Crop Pest Commission, The Board of Fertilizer Control and the Engineering Experiment Station. These services bring the college in close contact with agricultural and industrial enterprises throughout the state.

Clemson is a military college and its cadets live in barracks under military discipline. It is one of the top seven military schools in the nation, and both the Army and Navy maintain ROTC units here. The enrollment today is approximately 2400.

In civilian life Clemson men have proved themselves leaders. In every field—science, industry, agriculture and education—one will find them directing the economic and social life of our country.

\* \* \* \*

*An Institution of higher learning unique among schools of its kind in this country, for the excellence of its educational system and the feeling of brotherhood and unity among its students and alumni.*

THIS PAGE WAS MADE POSSIBLE THROUGH THE LIBERALITY OF FRIENDS OF CLEMSON

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“THE A & M COLLEGE OF SOUTH CAROLINA”

## BUSINESS NOTES

**William A. Schnell**, sales engineer for forty years with the **Link Belt Co.**, is now associated with the sales staff of **Consolidated Products Co., Inc.**, rebuilt chemical machinery dealers.

**Donald E. Curtice**, for the past six years superintendent of the **American Lumber and Treating Co.** plant at Port Newark, N. J., has been appointed general superintendent of plants, and will make his headquarters at the general offices of the company at Chicago.

Curtice joined **American Lumber and Treating** in 1938, and progressed through jobs at five of the company's ten wood-preserving plants.

**National Gypsum Company** has announced the completion of negotiations for the acquisition of **Wesco Water-paints, Inc.**, including plants, working capital and good will. Wesco with plants in Trenton, New Jersey, Good Hope, Louisiana; Matteson, Ill., California, Washington and Quebec will improve National Gypsum's position in the market for wall and ceiling construction materials.

**Ceco Steel Products Corporation**, national manufacturer of metal building products, has announced purchase of the business of **Sterling Windows, Inc.**, of

New York City and New Castle, Ind.

**C. Foster Brown, Jr.**, formerly assistant to Ceco's president has been named vice president in charge of the company's newly created **Sterling Aluminum Window Division**. Distribution will be channeled through Ceco's district offices and warehouses, coast to coast, and coordinated with the firm's sales agents and dealers.

It was announced recently that **Barber-Colman Company** of Rockford, Ill., will purchase the principal assets of **Wheelco Instruments Company** of Chicago. The Wheelco products consist of indicating, recording, and controlling industrial instruments, and combustion safeguards.

Present plans are to continue current operations in Chicago until such time as manufacturing facilities can be gradually transferred to Rockford in a manner that will result in very little interruption to shipments. No changes are contemplated in Wheelco's national sales and service organization.

Stockholders of the **Worthington Pump and Machinery Corporation** at their annual meeting on March 25 re-elected their present board and voted to change the company's name to the **Worthington Corporation**.

No corporation policies or practices will be affected in any way by the name change.

The appointment of five new representatives for the **Solder Seal** line of industrial specialties has been announced by **V. P. Bresan**, general sales manager of **Radiator Specialty Company**, Charlotte, N. C.

Additions to the **Solder Seal** field force include **Russell W. Kress** in the Minneapolis District; **R. F. Krisinger**, the Des Moines District; **William C. Pruett, Jr.**, Charleston, W. Va. District; **Ralph L. Winter**, St. Louis District; and **H. N. Windsor**, in the Cleveland District.

"Each of the new **Solder Seal** representatives has been chosen on the basis of long experience in the industrial field," Bresan said, "and each has been assigned to a native territory where he is widely known."

**Raymond L. Sutton** of Detroit has been appointed to head a new sales and service office for the **Tractor and Industrial Engine Division** of **Ford Motor Company** in Southeastern states.

Mr. Sutton, a sales and service engineer, will have headquarters at Atlanta, Ga., and offices at Charlotte, N. C., Memphis, Tenn., New Orleans, La., and Jacksonville, Fla.

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WHAT YOU WANT...  
WHEN YOU WANT IT!

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Sumter — Charleston, South Carolina

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Rope  
Baldwin Roller  
Chain  
American Pulleys  
Rockwood Motor  
Bases  
Diston Chain Saws  
Delta Power Tools  
Stanley Tools  
Aetna Steel Products  
Bethlehem Bar Joists  
Detroit Steel Sash  
Milwaukee Toilet  
Partitions



*Little trees . . . the future  
of a \$300,000,000 industry  
in South Carolina*

Photo by South Carolina State Commission of Forestry

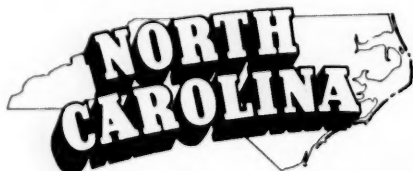


Family picnic at  
Locking Glass  
Falls on U. S. 276  
in Pisgah  
National Forest

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For a list of available sites and industrial buildings and other detailed information, communicate with PAUL KELLY, Department of Conservation and Development, Raleigh, N. C.



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100 PAGES  
200 PICTURES

## Delta Asks Consolidation of Merger Proceedings

Delta Air Lines and Northeast Airlines asked the Civil Aeronautics Board in Washington on March 11, to consolidate their merger proceeding with that of Northwest Airlines and Capital Airlines, in view of their interest in purchasing the southern routes of Capital as a connecting link between Delta and Northeast.

The Delta-Northeast petition disclosed for the first time details of efforts to purchase Capital's routes 51 and 55 for a sum "substantially" above \$4,000,000 in cash, including the southern routes and part of the physical assets of Capital.

C. E. Woolman, President of Delta, and George E. Gardner, President of Northeast, pointed out in their petition that they made an offer of \$4,000,000 on February 12, 1952, which was rejected on the ground that it might slow down the Northwest-Capital merger. Today's petition reveals that a new written offer was made this month substantially increasing the earlier offer.

"The creation of a Northwest-Capital combination, excluding Routes 51 and 55, and of a Delta-Northeast-Routes 51 and 55 combination, so completely solve financial and other problems, present and future, of all the carriers involved, as to make the creation of these two systems highly in the public interest," the Delta-Northeast petition says.

The Delta-Northeast petition suggests that Capital's routes 51 and 55 are not integrated with the east-west operations resulting from the combination of Northwest and Capital and extend southwest "at acute angles."

Capital's routes 51 and 55 extend from Washington, New York, and Pittsburgh to Atlanta, Birmingham, New Orleans, and Memphis.

The Delta and Northeast presidents reviewed discussions held with presidents of Northwest and Capital in early 1951 prior to the merger agreement reached by Capital and Northwest and said at no time was there ever any fundamental objection to the proposed plan to transfer at a fair price Capital's routes 51 and 55 upon consummation of a Northwest-Capital merger.

The Delta-Northeast petition describes the proposed merger and transfer of routes as "one of the rarest opportunities which has arisen in the history of the development of air transportation systems of the nation for the creation of sound air transportation systems, each capable of operating on the lowest service mail rate payment established by the Board, currently 45 cents per ton mile."

Delta and Northeast entered into a merger agreement October 17, 1950, provided a connecting link could be obtained from New York, the southern terminal of Northwest, to Atlanta, Columbia, S. C., or some other appropriate terminal of Delta.

Delta-Northeast officials did not disclose the terms of the latest offer.



## FINANCIAL NOTES

New records in sales and earnings before taxes were achieved by **Sterling Drug Inc.** in 1951, but substantially higher taxes on income brought net profit below that realized in 1950, according to the annual report signed by James Hill, Jr., chairman and president, and mailed to stockholders on March 18.

Net sales for 1951 were \$153,222,215, compared with \$138,727,337 in 1950, an increase of \$14,494,878, or 10.4 per cent.

Profit before taxes in 1951 was \$26,151,461, which compares with \$24,481,870, an increase of \$1,669,591. Provision for Federal and foreign taxes on income was \$14,600,000, compared with \$11,000,000 in 1950.

Net profit for the year ended December 31, 1951 was \$11,551,461. After deducting preferred dividends of \$403,290, these earnings are equivalent to \$2.91 per share of common stock. They compare with net profit in 1950 of \$13,481,870, or \$3.41 per share of common.

J. W. Alsdorf, President of **Cory Corporation**, announced on March 13 sales and earning figures for Cory Corporation, Chicago, and its subsidiaries, for the fiscal year ending December 31, 1951.

Sales for 1951 were \$8,355,562 as compared to \$7,505,899 in 1950. This represented an increase in sales of \$849,663 or approximately 11%.

Income before provision for Federal and Canadian taxes for the year 1951 amounted to \$966,537 as compared to 1950 earnings of \$945,615, or an increase in earnings of 2%.

The net income after provision for Federal and Canadian income taxes for 1951 amounted to \$481,537, or 75¢ per share, compared to \$555,615, or 86¢ per share in 1950, or a decrease of 13% or 11¢ per share because of higher tax rates for the year 1951.

**The Yale & Towne Manufacturing Company** during 1951 had a record sales volume of \$93,126,883, highest in its 83-year history, as compared with \$65,153,204 in 1950, an increase of 42.9%, and showed net income after taxes of \$2,823,833, as compared with net income in 1950 of \$2,707,137, an increase of 4.3%.

Net earnings per share on 613,186 shares outstanding at year end of 1951 were \$4.61, as compared with \$5.30 on the 510,707 shares outstanding in 1950.

To highlight the effect of current income taxes, the report showed that in 1951, the net income before taxes on income was \$8,237,833 or \$13.43 per share on the 613,186 outstanding shares, as compared with net income before taxes in 1950 of \$5,182,137 or \$10.15 per share on \$510,707 shares then outstanding. Taxes on income, however, for 1951 amounted to \$5,414,000 or \$8.82 per outstanding share as compared with 1950 taxes on income of \$2,475,000 or \$4.85 per outstanding share.

**American Optical Company**, in its 1951 annual report shows sales of \$66,864,829 for the year, as compared with \$57,747,789 for 1950.

Net earnings amounted to \$2,592,987, or \$3.98 a share, as compared with \$2,433,567, or \$3.77 a share, for the preceding year.

Sharply increased income taxes are reported. In 1951 they amounted to \$3,249,900, as compared with \$1,875,800 in 1950.

**National Container Corporation** has reported record sales of \$70,823,000 for the year ended December 31, 1951, an increase of 51.8% over the 1950 volume of \$46,646,000.

In 1951, net income before Federal income and excess profits taxes reached a new high of \$21,033,000, an increase of 78.7% above the \$11,768,000 for the previous year. Taxes took \$12,412,000 or 59% of the earnings for 1951. This amount represented an increase of 143% over the 1950 taxes of \$5,106,000, which were 43% of that year's earnings.

After Federal taxes, net income for 1951 amounted to \$8,617,000, an increase of 29.4% over the previous year's total of \$6,658,000. The 1951 net income was equal to \$3.09 per share of common stock outstanding and compares with \$2.42 per share for the year 1950.

**Reynolds Metals Company** and its wholly owned subsidiaries made a net profit of \$15,837,846 during the year 1951, according to an announcement by R. S. Reynolds, Jr., President. It is equal to \$10.58 a share. The profit was after all-time high taxes of \$32,288,822. This compares with a profit of \$12,599,731 or \$8.32 per share in 1950 for the same number of shares outstanding, after taxes of \$13,366,590. The annual payroll of the company increased from \$54,100,000 in 1950 to \$65,250,000 in 1951.

Net sales for 1951 totaled \$215,704,848 for an increase of 29 per cent over the \$166,925,510 reported for 1950.

**Liberty Life Insurance Company**, of Greenville, S. C., had its most successful year in 1951, it has been reported to stockholders by Francis M. Hipp, president.

An increase of \$51,240,191 was made in insurance in force, bringing the total to \$486,690,324.

Other principal increases were \$6,266,903 in resources and \$1,080,653 in surplus funds. Liberty Life now has \$57,154,052 in total resources and \$6,180,414 in capital and surplus funds.

Payments to policyholders and beneficiaries last year reached a peak of more than \$3,859,000, Mr. Hipp revealed.

Another record was set in regard to mortgage loans. During 1951, new first mortgage loans made by Liberty Life on residential and commercial properties

(Continued on page 146)

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GAY-LEE  
"THINSAW"  
CARBIDE TIPPED

Thin as .030"

You'll save time and rejects by using this new "Thinsaw" on production—precision slitting jobs.

Eliminates run-outs even on deep cuts

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We maintain the highest standard of excellence in the manufacture of Planters Fertilizers. Our trade-mark on every bag is a guarantee that you are getting the Best Fertilizer Made. To produce increased yields, fertilizer must contain:

**NITROGEN • PHOSPHORIC ACID • POTASH**

In such proportions that it furnishes available and soluble supply of plant food at all times. Thousands of Farmers all over the South testify to the great results secured from the use of these well known brands:

<p><b>200 LBS. PLANTERS SPECIAL MIXTURE FERTILIZER</b> ANALYZED AND GUARANTEED ANALYSIS NITROGEN 10% PHOSPHORIC ACID 15% POTASH 10% 35% GUARANTY</p>	<p><b>"SPECIAL MIXTURE FERTILIZER".....4-10-6</b> <b>"SPECIAL MIXTURE FERTILIZER".....3-9-9</b> <b>"PEE DEE TOBACCO FERTILIZER".....3-9-6</b> <b>"SPECIAL TRUCK FERTILIZER".....5-10-5</b></p> <p>They will produce larger crops, enrich the soil and make it more productive for future crops. Ask our agent or write us direct for information about the best fertilizer for your land.</p> <p><b>Planters Fertilizer &amp; Phosphate Co.</b> CHARLESTON, S. C.    CHARLOTTE, N. C.</p>	<p><b>200 LBS. PLANTERS SPECIAL MIXTURE FERTILIZER</b> ANALYZED AND GUARANTEED ANALYSIS NITROGEN 10% PHOSPHORIC ACID 15% POTASH 10% 35% GUARANTY</p>
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## FORT WORTH

(Continued from page 63)

turn trip home. Also, the new plant will be adjacent to Consolidated Chemical Industries, Inc., from which we will obtain sulphuric acid for the manufacture of superphosphate."

Built to produce approximately 40,000 tons of plant food a year the tremendous plant has an overhead conveyor system to carry superphosphate from the superphosphate plant into the main building for mixing. A canopy over one of the loading docks makes it possible to load and cover plant food regardless of weather conditions.

Fort Worth is grinding out another series of products that mean security for thousands of workers now and in the future. The city's grain elevators, flour mills, and feed mills constitute the largest grain storage and milling center in the South. A daily capacity of 8,000 barrels of flour, 1,500 barrels of corn meal and 6,772 tons of feed takes care of a lot of appetites. Fort Worth's grain storage capacity is 27,785,000 bushels.

**Rate of Expansion**—New business opens in Fort Worth almost hourly. During 1950, 391 new firms got on the city's industrial bandwagon and 672 more expanded. This activity accounts for a new capital investment of \$53,694,000 and 20,356 new jobs that yield annual payrolls of \$66,869,000.

Fort Worth candy is world famous and fourteen plants give the city southern supremacy in this delicacy. Twenty-three furniture and upholstery factories make up another thriving industry in this bustling city and the "Ranch Oak" furniture made here is distributed on a national scale. The city is the site of the most active oil producing center in the world since 60 per cent of all Texas oil operations are in North Central Texas, the Panhandle and West Texas (an area serviced by Fort Worth) and Texas is the leading state in oil production. Three refineries make up an annual payroll of \$1,750,000 which is distributed among the firms' 600 employees. Total employment in the oil and gas industry in Fort Worth is estimated at more than 20,000 persons drawing salaries of \$100,000,000.

Something like a record in civic pride must have been set when Fort Worthians voted \$27,000,000 in improvement bonds during September 1951. Everybody will benefit when the money is spent for the funds go to street improvements, the Greater Fort Worth International Airport, fire protection, a children's museum and recreation.

The real estate picture in Fort Worth has a very substantial frame in the form of a \$3 million apartment hotel, the Westchester House, which has just been completed. It consists of 282,000 square feet of space and living units for 334 families. The opening date for Fortune Arms, Fort Worth's largest downtown residential elevated apartments, was late in the fall of 1951. E. E. Cleer is general contractor for this 11-story \$2 million structure containing 234 apartments. Western



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**Bagged Limestone Shipped Promptly**  
**Santee High Calcium Lime**



**Carolina CEMENT & LIME COMPANY**  
Harleyville, South Carolina

Hills Motel, the latest word in hotel-motel-resort comfort built at a cost of \$2 million, has been completed in 1951 and adds color and charm to the city. Fort Worth Wholesale Merchandise Co.'s 90,000 square foot warehouse on West Vickery was occupied by the end of 1951. This firm has 3 more warehouses with more than 300,000 square feet storage under construction. The four structures will cost \$2 million. The Fort Worth National Bank Building nearing completion will give the city a 15-story building and more office space than any other office building. A total of 110,000 square feet of space will be for use as the bank's offices; 157,500 square feet will be offered as rent space.

During 1950 the city showed continued increases in its sales and buying income. In 1947 there were 382 plants turning out \$467,592,500 worth of goods. Today the city has 425 plants producing an economic harvest of \$700,000,000. The total payrolls in industry today in Fort Worth is 16 times that of 1939. There has been a surge of 61% increase in production workers since 1947 with a corresponding payroll hike of 93 per cent. Fort Worth is truly forging ahead as it turns all out for defense and home needs.

Despite the tremendous gains in industry livestock is still a big business for Fort Worth and citizens are proud of the nickname of "Cowtown" for their city. This activity represents many millions of dollars. During 1950 the Fort Worth Stock Yards received 539,573 head of cattle; 275,760 calves; 686,935 hogs; 1,055,234 sheep (making Fort Worth the nation's sheep center). One hundred and twenty-five million bushels of wheat go to the Fort Worth market each year. Armour, Swift & Co. and the Fort Worth Stockyard hire more than 10,000 workers who earn more than \$18 million a year. Fort Worth got its name of Cowtown from being located near the old Chisholm Trail, along which Texans drove their herds to the Kansas rail heads before the railroads came to Fort Worth. Today it is one of the nation's 10 largest cattle markets.

Fort Worth is not undergoing a boom in the ordinary sense. More, it shows the spirit of people attending a huge state fair where a feeling of warmth and goodwill is in the air and in the hearts of the crowds. That's the way it is in Fort Worth. People are on the march, engaged in defense production, industrial jobs, sports cavalcades, and conventions thoroughly western and world wide.

### Van Clief New Manager at New Pittsburgh Plate Glass Factory

Appointment of William C. Van Clief, Jr., as manager of Pittsburgh Plate Glass Company's new power driven brush factory at Baltimore has been announced by E. D. Peck, general manager of the firm's brush manufacturing division.

Mr. Van Clief has served as an industrial consultant since 1946 and prior to that was associated with the Wright Aeronautical Corporation.

## More Natural and Coke Oven Gas

Now Used in

## Birmingham District than Greater New York



SOUTHERN NATURAL GAS COMPANY—headquarters Birmingham—has increased its system's capacity more than 175% in the past five years. This Company transports natural gas to Alabama and adjacent States. Alabama Gas Corporation, a subsidiary, distributes this gas to the Birmingham district and 32 municipalities in central Alabama. It also distributes coke oven gas, produced in Birmingham, to users in this area. Construction of 109 new coke ovens by Alabama By-Products Corporation, Sloss-Sheffield Steel & Iron Company and Republic Steel Corporation will increase this coke oven gas supply 33 1/3% by early 1952.

Christopher T. Chenery, Chairman of the Board of Southern Natural, has cited these reasons for his Company's great growth:

"Our Company's expansion mirrors the spectacular advance of the Birmingham district and our markets in the Southeast. Our section has become one of the country's important industrial areas. Transition from a cotton-dominated region to one of diversified industry and agriculture has been an outstanding factor in its economic progress. This has helped create a buying power that today absorbs a steadily increasing volume of manufactured goods. Growing purchasing power of the colored population has likewise been most important. Their living standards have risen remarkably fast. Our Company foresees acceleration of the present industrial development throughout our territory. This is why we have projected a further long-range program to provide additional capacity, far exceeding that we have today."



Central district of the Southeast is Birmingham. The Committee of 100 or any of the undersigned members of the Executive Committee will welcome your inquiries for specific, confidential data regarding the advantages of this district for your plant, office or warehouse.

### BIRMINGHAM COMMITTEE OF 100

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Iron & Railroad Co.

## Columbia-Southern Chemical Corp. Plans Full Scale Operations Soon

Columbia-Southern Chemical Corporation will be in full-scale commercial production of two new products, Hydrotan and Hydrocarb, within three months at its Corpus Christi, Texas, plant, according to an announcement by E. T. Asplundh, president.

Developed at the firm's Research and Development Department at Corpus Christi after more than one year's research and pilot plant testing, the products are designed for treatment of oil well drilling muds. Oil field use during the past 18 months indicates that the new products will afford safer drilling control and more economical operation.

Mass production of Hydrocarb promises to relieve U. S. drilling operators of dependence upon Argentine produced quebracho, heretofore an essential material to oil well drillers. A pilot plant has been turning out both products during 1951 and an enthusiastic reception has been indicated by the oil drilling industry.

Hydrotan controls the viscosity of drilling mud and by being a colloid adds other desirable properties in the process. It is a dry product packaged in paper sacks for use with drilling mud on the drilling site.

Current method calls for mixing quebracho and caustic soda at the drilling site. This practice results in considerable loss of both dry constituents and is accomplished with hazards to the handlers. Hydrotan as manufactured is ready for use.

Hydrocarb is effective in preparing oil emulsion muds which in many instances have displaced water-based muds on deep wells. It promises to make the treating process less costly. Columbia-Southern

officials believe that the product may eventually make the nation's drillers independent of the controlled South America quebracho markets. Total output of the new plant will be distributed through the Baroid Sales Division, National Lead Company.

(Quebracho, obtained from quebracho trees in South America, principally Argentina, gives characteristics to drilling mud which make for more successful drilling.)

Facilities for the production of Hydrotan and Hydrocarb are part of Columbia-Southern Chemical Corporation's \$8,000,000 expansion program at Corpus Christi. The firm, a wholly-owned subsidiary of Pittsburgh Glass Company, is doubling chlorine facilities and the office and laboratory building will be enlarged in the near future.

## "3M" Announces Opening of New Plant in Atlanta

Opening of a new regional sales office and warehouse building in Atlanta, Ga., was announced recently by officials of Minnesota Mining & Manufacturing Co.

The new facilities, designed to permit better service to 3M customers in Georgia and neighboring states, are located at 732 Ashby St., NW.

To keep up with  
Southern Progress  
Read the Record  
\$3.00 A Year



## GARY WELDED GRATING

Send for attractive paper-weight sample, which is yours for the asking. Catalogues upon request.

Square edge bars for safe footing.  
Hexagonal cross bars for neat appearance.

Gary-Riveted Grating :: Gary Stair Treads  
**STANDARD STEEL SPRING COMPANY**

Open Steel Floor Grating Division  
2700 East 90th Avenue, Gary, Indiana

George E. Steck has been southeastern cellophane tape sales manager for 3M since 1948 when the company opened a sales office in Atlanta.

Russell D. Baird, formerly office manager of the firm's branch at High Point, N. C., has been named to a similar post in Atlanta.

The new office and warehouse building is similar to facilities opened by 3M within the past year at Buffalo, N. Y., Dallas, Tex., and Cleveland, O. These branch offices and warehouses are part of a company program to improve its service to retail and industrial customers in all parts of the country.

The firm manufactures cellophane and other pressure sensitive tapes, coated abrasives, "SCOTCHLITE" Brand Reflective Sheeting, adhesives, lithographic plates and other printing accessories, electrical and sound recording tapes, roofing granules and chemicals.

### SAUEREISEN

HIGH TEMPERATURE CEMENTS

For laying and coating brickwork, forming refractory shapes or furnace linings on the job, and making patches to existing structures. Write for latest catalog.

**TRIAL ORDER FOR REFRACTORY USERS**

Mandy quart cans for making comparative tests—5 different cements. **\$6.75**

Sauereisen Cements Company Pittsburgh 15 Pa.

## MERCROID

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IT'S THE MERCURY SWITCH THAT DISTINGUISHES MERCROID FROM THE AVERAGE LINE OF CONTROLS

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IN — QUALITY  
ACCURACY  
DURABILITY  
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EASY INSTALLATION  
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SIMPLIFIED WIRING  
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# Joanna Cotton Mills Co.

Joanna, South Carolina

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**QUALITY WINDOW SHADE CLOTHS  
and DRAPERIES**

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**SELLING AGENTS:**

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## JAMES DORAN COMPANY

*Stevedores and Steamship  
Agents*

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404 Peoples Building

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•  
Especially Equipped to Handle

Bulk Cargoes



### **Equipped for Everything**

Extensive facilities of Charleston Shipyards, Inc., cover 19 acres, include drydock, 4 building ways, finger piers with 10 berths, gantry crane, 12 locomotive cranes and 7 large machine and repair shops.

*For details, write  
L. Louis Green, Jr., President*

**CHARLESTON SHIPYARDS, Inc.**  
Charleston, South Carolina



## Financial Notes

(Continued from page 141)

throughout the Southeast totaled over \$9,000,000. The Company's total mortgage loan investment now amounts to more than \$29,000,000.

The highest sales and earnings in the 53-year history of **The Goodyear Tire and Rubber Company** are shown in the 1951 annual report being sent to stockholders by Chairman P. W. Litchfield and President E. J. Thomas.

For the first time Goodyear passed the billion dollar mark in sales last year, with a 30 per cent increase to a total of \$1,101,141,392. Record net income of \$36,628,296 compared with \$35,109,355 the year before and amounted to \$8.18 per share of common stock now outstanding.

The annual report revealed that one-fourth of the 900,000 tons of synthetic rubber produced in the United States and Canada in 1951 came from Goodyear-built plants. Currently the Goodyear plant at Houston, Texas is the world's largest producer of synthetic rubber.

**American Machine and Foundry Company's** sales for 1951 set an all-time record while net income rose to \$2,711,000 as against \$2,016,000 in 1950, according to AMF's annual report to stockholders issued today by Morehead Patterson, board chairman and president.

Sales, rentals and royalties climbed to \$54,203,000 in 1951, a new high in AMF's 51-year-old history and almost double the \$27,517,000 total recorded in 1950. Mr. Patterson reported.

After dividends on AMF's 3.90% cumulative preferred stock, earnings per share of common stock amounted to \$1.83 for 1951 compared with \$1.53 in 1950. These figures are based upon 1-319,460 shares of common stock outstanding on December 31, 1951 as against 1-120,506 shares of common stock outstanding at 1950's end.

Consolidated gross and net income of **Cities Service Company** reached new high levels during 1951. Mounting taxes, however, absorbed practically all of the \$20,629,000 increase in earnings before taxes on income. W. Alton Jones, President, stated today in the Annual Report to stockholders.

Consolidated gross income for 1951 was \$835,565,000, an increase of \$133,322,000 over 1950.

Earnings before taxes on income totalled \$107,921,000, an increase of \$20,629,000. Taxes on income totalled \$50,744,000, an increase of \$20,111,000.

Net income was \$57,177,000, an increase of \$518,000 over 1950. This was equivalent to \$14.71 per share of Common Stock, an increase of 14 cents over 1950.

Consolidated net current assets at the year end were \$201,935,000, an increase of \$19,037,000. Cash and Government securities held aggregated \$198,450,000.

Consolidated long term debt increased only \$8,200,000 notwithstanding the fact that expenditures for construction and acquisitions were \$82,000,000.

Sales of **Minnesota Mining and Manufacturing Company** for 1951 reached an all-time peak of \$170,067,527, the firm reported on March 20.

The company also reported record federal taxes paid during the year. Profits before and after taxes were the second highest in 3M's fifty year history.

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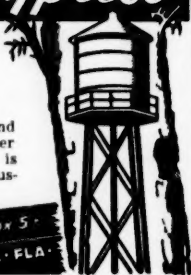
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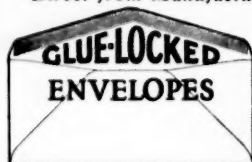
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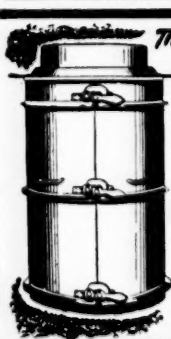
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# NEW PLANTS

(Continued from page 22)

line from Sour Lake, Tex. to Lake Charles, La.

**TEXAS**—Lone Star Producing Co., affiliate of Lone Star Gas Co., plans \$3,000,000 gasoline plant.

**TEXAS**—Morton-Withers Chemical Co., Joseph R. Morton, Pres., Greensboro, N. C., plans \$2,000,000 synthesized petroleum sulfonate plant, NPA granted certificate of necessity.

**TEXAS**—Shell Pipe Line Corporation laying 455 miles, 24-inch main line of Rancho Pipe Line System, cost \$35,000,000.

**AMARILLO**—Shamrock Oil & Gas Corp. plan \$7,000,000 expansion.

**BEAUMONT**—Armour & Co., 1065 Laurel, to repair warehouse fire damage, cost approx. \$25,000.

**BIG SPRING**—Southwestern Bell Telephone Co., A. A. Ganssle, 306 S. Akard St., Dallas, two-story telephone exchange building, cost approx. \$100,000; Preston M. Geren, 965 Nell P. Anderson Bldg., Ft. Worth, Archt.

**BRAZOS**—Brazos River Transmission Electric Cooperative has REA loan of \$1,250,000 for 45 miles transmission line, Tex. 121 H. Brazos.

**COLORADO CITY**—West Texas & Gulf Pipe Line Co., Gulf Bldg., pump station, cost approx. \$75,000; Hamilton Brown, 2017 W. Gray Houston, Archt.

**CORPUS CHRISTI**—Columbia-Southern Chemical Corp., O. D. Feland, Chief Draftsman, P. O. Box 4026, office and laboratory building, Smyth & Smyth, 1806 S. Alameda St., Archts.

**CORPUS CHRISTI**—Sunray Oil Corporation, 1220 S. Staples, catalytic cracking refinery in excess of \$10,000,000.

**CORPUS CHRISTI**—G. R. Swanner, building addition 3000 block S. Alameda, Richard S. Colley, 310 S. Taneahua, Archt.

**DALLAS**—Graham-Brown Shoe Co., 710 Main St., plans warehouse and office building.

**DALLAS**—Merchants Fast Motor Lines, Inc., plans new freight terminal, Dragon & Oak Lawn, cost approx. \$400,000.

**DALLAS**—Southwestern Bell Telephone Co., Chester Cole, Supt., plans underground long distance lines, cost \$1,000,000.

**DALLAS**—Texas Instruments, Inc., addition to present building, 6000 Lemmon Ave.; Smith & Mills, Mercantile Security Bldg., Archts.

**DALLAS**—Twist Drill Co. plans office and warehouse, 1615 Dragon St., cost \$29,111; F. J. Woerner & Co., 1006 Stonewall St., Archts.

**FORT WORTH**—Empire Steel Corp., 300 E. Vickery, erecting one-story shop building, cost approx. \$30,000.

**FORT WORTH**—Chicago Pneumatic Tool Co. to erect new plant on 8½-acre site; will move Oil Tool plant from Franklin, Pa.; transfer to cost approx. \$5,000,000.

**FORT WORTH**—Southwestern Bell Telephone Co., 308 S. Akard St., Dallas, to erect Telephone Exchange Building, 5400 Pershing.

**FREEPORT**—Dow Chemical Co., \$1,850,000 research laboratory; MacKie & Kamrath, 2713 Ferndale Ave., Houston, Archts.

**HILLSBORO**—Southwestern Bell Telephone Co., 308 S. Akard St., Dallas, dial building; Gill & Harrell & Associates, 1913 San Jacinto St., Dallas, Archts.

**HOUSTON**—Anderson Brothers Corp., 707 N. Drennan, plans addition to shop building.

**HOUSTON**—I. Falls Construction Co., 3314 Arbor St., submitted low bid for warehouse.

Chenevert & Commerce Sts., Job No. 52-HO.; Woestemeyer & Gaffney, 2419 Travis St., Archts.

**HOUSTON**—Freeport Sulphur Co., Langbourne M. Williams Jr., Pres., New York, N. Y., plan \$20,000,000 expenditure to increase supply of defense-essential sulphur.

**HOUSTON**—Herrin Transfer Co., 701 Dowling St., plan \$85,000 warehouse, 2301 McKinney.

**HOUSTON**—Humble Oil & Refining Co., research center, S.W. cor. Buffalo Speedway and W. Alabama Ave., \$2,725,000; McKie and Kamrath, Archts.

**HOUSTON**—Myron C. Kyckel-Hahn & E. F. Wilson, 6363 Auden, plans warehouse, southwest corner Navigation & Terminal.

**HOUSTON**—Pumps, Inc., 807 Franklin, office and warehouse, LaBranch & Preston Sts., \$64,350; Roy W. Lebsie, 3702 Alameda Road, Archt.

**HOUSTON**—Henry H. Reichhold, Detroit, Mich., plans \$5,000,000 phenol chemical plant.

**HOUSTON**—Scientific Glass Blowing Co., R. A. Muller, 5502 Lawndale, plans shop and office building, 5506 Lawndale.

**HOUSTON**—Wyatt Metal & Bolier Works, office building, remodeling and addition, Washington Ave. & M. K. & T. Railroad Tracks; Hiram A. Salisbury & T. George McHale, 3501 Buffalo Drive, Archts.

**KILLEEN**—Texas Fireproof Storage Co., \$57,474 warehouse; Walter Cocke Jr. & Co., 1577 Franklin Ave., Waco, Archts.

**LA PORTE**—Sinclair Refining Co., Commerce Bldg., Annex, laboratory addition.

**LEAGUE CITY**—Housing Lighting & Power Co., 1016 Walker, \$20,000 generating plant.

**LUBBOCK**—Lubbock Engineering Co., 1721 Broadway, one-story office building, 1600 block Main, approx. \$30,000.

**LUBBOCK**—South Plains Rural Telephone Association, S. H. Bradford, Pres., plans 11 exchange buildings, cost approx. \$30,000; H. A. Green, P. O. Box 1139, Archts.-Engineers.

**MIDLAND**—Humble Oil & Refining Co., Hines H. Baker, Pres., \$55,000,000 oil development program for West Texas in 1952.

**MIDLAND**—Southwestern Drug Co., \$110,000 warehouse.

**MIDLAND**—G. H. Vaughn & Sons, Dallas, plan \$300,000 garage building; Wyatt C. Hedrick, 1005 First National Bank Bldg., Fort Worth, Archt.-Engr.

**PASADENA**—Shell Oil Co., additions to gate house and change house, cost approx. \$50,000.

**RANGER**—West Texas & Gulf Pipe Line Co., pump station, cost approx. \$100,000; Hamilton Brown, 2017 W. Gray St., Houston, Archt.

**RED RIVER COUNTY**—Texas Power & Light Co., W. W. Lynch, Pres., plans new 80,000-kw. elec. power plant.

**SAN ANTONIO**—Whitton Electric Co., 402 Vine St., shop building.

**TEMPLE**—Southwestern Bell Telephone Co., A. A. Ganssle, 308 S. Akard St., Dallas, \$100,000 addition to exchange building; Preston M. Geren, 905 Nell P. Anderson Bldg., Fort Worth, Archt.

**VICTORIA**—F. M. Kalinowski, business building, 207 S. Main St., \$47,534; Jordan C. Ault & Assoc., 604 E. Goodwin St., Archts.-Engrs.

**WORTHAM**—West Texas & Gulf Pipe Line Co., pump station, cost approx. \$100,000; Hamilton Brown, 2017 W. Gray St., Houston, Archt.

## VIRGINIA

**RICHMOND**—Cruikshank's Iron Works Co., office building.

**RICHMOND**—L. H. Jenkins, Inc., 2201 W. Broad St., plant addition.

**RICHMOND**—Reynolds Metals Co., alterations and improvements, 117 N. Third St., \$19,493; Marcellus Wright & Son, 100 E. Main St., Archts.

## WEST VIRGINIA

**WEST VIRGINIA**—National Production Authority approved applications and allotted materials for industrial construction during second quarter of 1952 to following firms:

Columbia Southern Chemical Co., New Martinsville, \$8,888,000, chlorine, and caustic soda; E. I. du Pont de Nemours Co., Martinsburg, \$5,750,000, dynamite; E. I. du Pont de Nemours Co., Charleston, \$843,000, chemicals; Carbide and Carbon Chemical Co., Institute, \$1,460,500, ethylene oxide; Allied Chemical and Dye Corp., Moundsville, \$22,045,000, chemicals; Food Machinery and Chemicals, Charleston, \$1,250,000, chlorine and caustic soda; Food Machinery, South Charleston, \$200,000, heavy chemicals; Food Machinery, South Charleston, \$2,503,000, ammonia; American Cyanamid Co., Willow Island, \$1,121,500, melamine; Union Carbide and Carbon Corp., South Charleston, \$853,000, tri-2-ethylphenol phosphate; E. I. du Pont de Nemours Co., Charleston, \$75,000, plastics and chemicals; Food Machinery, South Charleston, \$3,535,000, carbon bisulfide; E. I. du Pont de Nemours Co., Charleston, \$130,000, glycol; E. I. du Pont de Nemours Co., Charleston, \$14,000, adipic acid; E. I. du Pont de Nemours Co., Charleston, \$32,600, hydroxyacetic acid; E. I. du Pont de Nemours Co., Parkersburg, \$505,000, tetlon; Columbia Southern Chemical Corp., New Martinsville, \$3,000,000, carbon tetrachloride; Food Machinery, South Charleston, \$200,000, chemicals; Food Machinery, South Charleston, magnesol; Carbide and Carbon, South Charleston, \$87,900, methyl-benzyl ethanamine; Carbide and Carbon, South Charleston, \$34,100, pyruvic aldehyde; Carbide and Carbon, South Charleston, \$353,200, chemicals; Carbide and Carbon, Institute, \$2,933,500, E. alcohol; Carbide and Carbon, South Charleston, \$133,400, intermediate chemicals; Carbide and Carbon, Institute, \$3,493,800, acrylonitrile; Carbide and Carbon, Institute, \$10,830,710, chemicals; Du Pont, Charleston, \$3,895,000, urea; E. I. du Pont, Parkersburg, \$505,000, tetlon; Food Machinery, South Charleston, \$200,000, carbonyl chloride; Follansbee, \$445,604, naphthalene; Koppers Co., Ohio River, \$110,000, naphthalene quinoline; Koppers Co., Follansbee, \$250,000, naphthalene; Ohio-Apex Co., Nitro, \$184,200, plasticizer; triethyl phosphate; Carbide and Carbon, Weirton, \$1,473,000, steel strapping; Sylvania Electric Products Co., Wheeling, \$25,952, fluorescent fixtures; Polan Industries, Huntington, \$2,245,000, glass for electronic tubes; Signode Steel Strapping Co., Weirton, steel strapping and related products; National Steel Corp., Weirton, \$3,431,000, steel products; International Nickel Co., Huntington, \$350,000, nickel base alloy; National Steel, Weirton, \$172,000, steel ingots, steel sheets; National Steel, Weirton, \$170,000, steel; National Steel, Weirton, \$135,000, pig iron; Wheeling Steel Corp., Benwood, \$1,410,000, blooms and skelp steel; National Steel, Weirton, \$1,405,000, steel sheets, tin plate; Continental Foundry and Machine Co., Wheeling, \$240,000, steel; Weirton Steel Co., Weirton, \$170,000, steel; Libbey-Owens-Ford Glass Co., Parkersburg, \$4,770,000, glass fibers; Polan Industries, Huntington, \$320,000, glass for electronic tubes; China Glass, China Co., Newell, \$90,000, semi-vitrous china ware; Harker Pottery Co., Chester, \$150,000, pottery, dinnerware.

**HUNTINGTON**—Columbia Gas System plans new pipe line.

**NITRO**—American Viscose Corp. has NPA approval for rayon staple fiber project, \$32,382,400.

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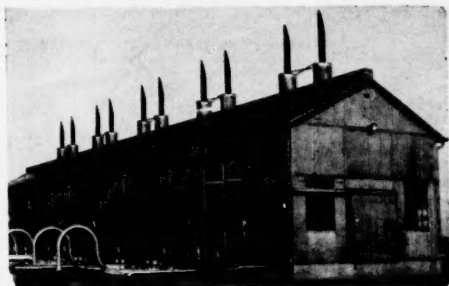
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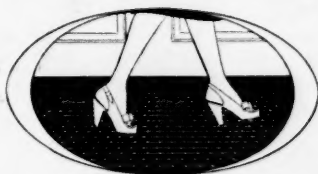
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"I wonder what happened to me!", said Alice

**ALICE** in Wonderland ate the magic cake and grew until she was more than nine feet tall. Our National bureaucracy also seems to have partaken of the magic cake of power. Bureaus in our government have grown in number and scope until their activities now control, to a great extent, the lives of all individual Americans. Department after department adds more and more people--state, justice, commerce, treasury--not to mention those sprawling emergency born agencies of price control, N.P.A. and other alphabetical subdivisions.

The number of employees of our federal, state and local governments continues to grow. During many recent months, personnel was added

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- ☆ America's vast reserves make coal's supply always dependable!
- ☆ Dependable supply assures price stability!
- ☆ A progressive industry strives constantly to deliver an ever better product at the lowest possible price!

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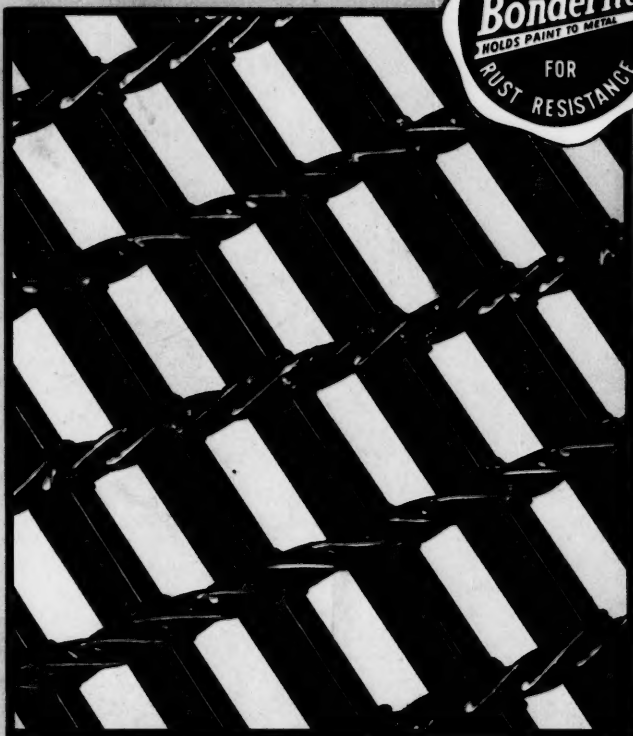


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